

# SEQUENCE LISTING

<110> WEI, Ming-Hui et al.

<120> ISOLATED HUMAN ENZYME PROTEINS, NUCLEIC  
ACID MOLECULES ENCODING HUMAN ENZYME PROTEINS, AND USES  
THEREOF

<130> CL001180-DIV

<160> 4

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 4239

<212> DNA

<213> Homo sapiens

<400> 1

```
tggcagtgagg cggcgtagag cactgcagca gcaatgacgg agggcacgtg tctgcgggcg 60
cgaggggggccc cctacaagac cgagcccggc accgacctcg gccgctggcg actcaactgc 120
gagagggggccc ggcagacgtg gacctacctg caggacgagc gccgcccggc cgagcagacc 180
ggcctggaag cctacgccct ggggctggac accaagaatt actttaagga cttgccccaa 240
gcccacaccg cctttgaggg ggctctgaac gggatgacat ttacgtggg gctgcaggct 300
gaggatgggc actggacggg tgattatggt ggcccacttt tcctcctgcc aggcctcctg 360
atcacttgcc acgtggcacg catccctctg ccagccggat acagagaaga gattgtgcgg 420
tacctgcggc acattgagga taagtccacc gtgtttggga ctgcgtcaa ctatgtgtct 480
ctcagaattc tgggtgttgg gcctgacgat cctgacctgg tacgagcccg gaacattctt 540
cacaagaaag gtggtgctgt ggccatcccc tcctggggga agttctggct ggctgtcctg 600
aatgtttaca gctgggaagg cctcaatacc ctgttcccag agatgtggct gttcctcgac 660
tgggcaccgg cacaccctc cacactctgg tgccactgcc ggcaggtgta cctgccccatg 720
agctactgct acgcccgttc gctgagtgcc gcggaagacc cgctggtcca gagcctccgc 780
caggagctct atgtggagga cttcgccagc attgactggc tggcgagag gaacaacgtg 840
gccccgcagc agctgtacac gccgcacagc tggctgctcc gcgtggtata tgcgtcctc 900
aacctgtatg agcaccacca cagtgcacc ctgcggcagc gggccgtgca gaagctgtat 960
gaacacattg tggccgacga ccgattcacc aagagcatca gcacggccc gatctcgaaa 1020
accatcaaca tgcttgtgct ctggtatgtg gacgggccc cctccactgc cttccaggag 1080
catgtctcca gaatcccga ctatctctgg atgggccttg acggcatgaa aatgcagggc 1140
accaacggct cacagatctg ggacaccgca ttccgcatcc aggcctctgt tgaggcgggc 1200
gggcaccaca ggcccagatt ttcgtcctgc ctgcagaagg ctcatgagtt cctgaggctc 1260
tcacaggctc cagataaacc tcccgaactc cagaagtact accgccagat gcgcaagggt 1320
ggcttctcct tcagtacgtt ggactgcggc tggatcgttt ctgactgcac ggctgaggcc 1380
ttgaaggctg tgctgtcctt gcaggagaag tgtccccatg tcaccgagca catccccaga 1440
gaacggctct gcgatgctgt ggctgtgctg ctgaacatga gaaatccaga tggagggttc 1500
gccacctatg agaccaagcg tggggggcac ttgctggagc tgctgaacct ctggagggtc 1560
ttcggggaca tcatgattga ctacacctat gtggagtgc cctcagccgt gatgcaggcg 1620
cttaagtatt tccacaagcg tttcccgag cacagggcag cggagatccg ggagaccctc 1680
acgcagggtc tagagttctg tcggcggcag cagagggccg atggctcctg ggaaggctcc 1740
tggggagttt gcttcaccta cggcacctgg tttggcctgg aggccttcgc ctgtatgggg 1800
cagacctacc gagatgggac tgctgtgca gaggctctcc gggcctgtga cttcctgctg 1860
tcccggcaga tggcagacgg aggcctgggg gaggactttg agtcctgcga ggagcggcgt 1920
tatgtgcaga gtgcccagtc ccagatccac aacacatgct gggccatgat ggggctgatg 1980
gccgttcggc atcctgacat cgaggcccag gagagaggag tccggtgtct acttgagaaa 2040
cagctcccca atggcgactg gccgcaggaa aacattgctg gggctctcaa caagtcctgt 2100
gccatctcct acacgagcta caggaacatc tccccatct gggccctcgg ccgcttctcc 2160
cagctgtacc ctgagagagc ccttgctggc caccctgag aacatgccta cctgctgggt 2220
```

```

gccgtctgtg cgttccagtg aggccaaggg gtcctggccg ggttggggag ccctcccata 2280
accctgtctt gggctccaac ccctcaacct ctatctcata gatgtgaatc tgggggcccag 2340
gctggaggca gggatgggga cagggtgggt ggcttagact cttgattttt actgtaggtt 2400
catttctgaa agtagcttgt cgggcttggg tgaggaaggg ggcacaggag ccgtgacccc 2460
tgaggaggca cagcgccttc tgccacctct gggcacggcc tcaaggtagt gaggctagga 2520
ggttttttct gaccaatagc tgagttcttg ggagaggagc agctgtgcct gtgtgattcc 2580
ttagtgtcga gtgggctctg ggctggggtc ggccctgggc aggtctctcc tgcacctttt 2640
gtctgtctgg ctgagggaca cgagggaac cctgtgacaa tggcaggtag tgtgcatccg 2700
tgaatagccc agtgcggggg ttgctcatgg agcatcctga ggccgtgcag caggggagccc 2760
catgcccctg ggtcgtgagc ttgcctgctg atgggggtgt gtcatggagc ctcatgcccc 2820
tgggtcgtga gctcgcctga gtatggggtg gtgtcatgga gccgcatacc cctgggttgt 2880
gagctcgctc gcatatgcag ggtctgtcat ggaacatccc aagtctgtgc agcaggggagc 2940
cccatgcccc tgggacatga acccacctgc gtggaatgct gtttgtgagg tgtctacagg 3000
gtttatagta gtcttggtga cacagaaatg cacaggggac acttacggac acagaaatgc 3060
acaggggagg ccgagcataa ccaggggtga ggggcaggca gcagttgtag ttactgccgc 3120
ggggcactgc tatgtgcagg gacagccagc gccagccca tcaccactcc ctgggctggc 3180
tggcaggtag ggcacctgga gagccgggca tataccagg gcacccctac ggctgccgcc 3240
agtctcatgc ccagggtgggt gctctgggct ggagcgaggg ccagggtttt ggccgaggct 3300
tccccaggca atcctgtgag ctcccttcta gcctctgacc cagtctggtc tggcttgcac 3360
ggatgtaggg cttgggggtg gaagttcagg tcttggtttt gcctttgcct gatgtggatg 3420
agcagctcac atgctcagg ccacctgaga ctgtcactgc tctcccttgg ctactgggag 3480
gagtcactga gagcttcgtt acccctgctg ccttgcccag ggcacaccct atacctcctc 3540
atctgtctct cccctccctg ccgccttctg ggcaggtagc agtccctggc ctctccccct 3600
ggctgatcac tctccctcag gcagtgga ga tctgctctg gacaccctca gatcctgtca 3660
ttgcctgccc agagtccttc aggggcaccc ctctgccttg gtgtgcggtc cagggtctctc 3720
accaggtgc cgcacctctt ggggtcttct gtccagctcc cttgccccat gtgtgtcac 3780
tgactctcct tgggactcgc ctgcctgctc agagccctgc agggcttggc cagctgcctg 3840
ttcagtgtca acattccct gcacatctta aaactgggct ttattttcgc tgaaggaaact 3900
gtgttgggac ccttgacatc tgtcagggtt gcacatgctg ttttttttcc tcagcccacg 3960
tgttctcccc cagctggggg agcagcagga cagacagtga atcacagagt ctgcccctgag 4020
cagaggctgc tgtccctggg actcctagcc atggtcagac tgtacaaaac ggttttccag 4080
aaatgaaatg taaatccatt tttatactga aaatgttact gaaagtcact tttatgagca 4140
tctgccttaa taaacagaca ttgattccct taaaaaaaaa aaaaaaaaaa aaaaaaaaaa 4200
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 4239

```

<210> 2  
 <211> 721  
 <212> PRT  
 <213> Human

```

<400> 2
Met Thr Glu Gly Thr Cys Leu Arg Arg Arg Gly Gly Pro Tyr Lys Thr
 1           5           10           15
Glu Pro Ala Thr Asp Leu Gly Arg Trp Arg Leu Asn Cys Glu Arg Gly
 20           25           30
Arg Gln Thr Trp Thr Tyr Leu Gln Asp Glu Arg Ala Gly Arg Glu Gln
 35           40           45
Thr Gly Leu Glu Ala Tyr Ala Leu Gly Leu Asp Thr Lys Asn Tyr Phe
 50           55           60
Lys Asp Leu Pro Lys Ala His Thr Ala Phe Glu Gly Ala Leu Asn Gly
 65           70           75           80
Met Thr Phe Tyr Val Gly Leu Gln Ala Glu Asp Gly His Trp Thr Gly
 85           90           95
Asp Tyr Gly Gly Pro Leu Phe Leu Leu Pro Gly Leu Leu Ile Thr Cys
100          105          110
His Val Ala Arg Ile Pro Leu Pro Ala Gly Tyr Arg Glu Glu Ile Val
115          120          125

```

Arg	Tyr	Leu	Arg	His	Ile	Glu	Asp	Lys	Ser	Thr	Val	Phe	Gly	Thr	Ala	130	135	140
Leu	Asn	Tyr	Val	Ser	Leu	Arg	Ile	Leu	Gly	Val	Gly	Pro	Asp	Asp	Pro	145	150	155
Asp	Leu	Val	Arg	Ala	Arg	Asn	Ile	Leu	His	Lys	Lys	Gly	Gly	Ala	Val	165	170	175
Ala	Ile	Pro	Ser	Trp	Gly	Lys	Phe	Trp	Leu	Ala	Val	Leu	Asn	Val	Tyr	180	185	190
Ser	Trp	Glu	Gly	Leu	Asn	Thr	Leu	Phe	Pro	Glu	Met	Trp	Leu	Phe	Pro	195	200	205
Asp	Trp	Ala	Pro	Ala	His	Pro	Ser	Thr	Leu	Trp	Cys	His	Cys	Arg	Gln	210	215	220
Val	Tyr	Leu	Pro	Met	Ser	Tyr	Cys	Tyr	Ala	Val	Arg	Leu	Ser	Ala	Ala	225	230	235
Glu	Asp	Pro	Leu	Val	Gln	Ser	Leu	Arg	Gln	Glu	Leu	Tyr	Val	Glu	Asp	245	250	255
Phe	Ala	Ser	Ile	Asp	Trp	Leu	Ala	Gln	Arg	Asn	Asn	Val	Ala	Pro	Asp	260	265	270
Glu	Leu	Tyr	Thr	Pro	His	Ser	Trp	Leu	Leu	Arg	Val	Val	Tyr	Ala	Leu	275	280	285
Leu	Asn	Leu	Tyr	Glu	His	His	His	Ser	Ala	His	Leu	Arg	Gln	Arg	Ala	290	295	300
Val	Gln	Lys	Leu	Tyr	Glu	His	Ile	Val	Ala	Asp	Asp	Arg	Phe	Thr	Lys	305	310	315
Ser	Ile	Ser	Ile	Gly	Pro	Ile	Ser	Lys	Thr	Ile	Asn	Met	Leu	Val	Arg	325	330	335
Trp	Tyr	Val	Asp	Gly	Pro	Ala	Ser	Thr	Ala	Phe	Gln	Glu	His	Val	Ser	340	345	350
Arg	Ile	Pro	Asp	Tyr	Leu	Trp	Met	Gly	Leu	Asp	Gly	Met	Lys	Met	Gln	355	360	365
Gly	Thr	Asn	Gly	Ser	Gln	Ile	Trp	Asp	Thr	Ala	Phe	Ala	Ile	Gln	Ala	370	375	380
Leu	Leu	Glu	Ala	Gly	Gly	His	His	Arg	Pro	Glu	Phe	Ser	Ser	Cys	Leu	385	390	395
Gln	Lys	Ala	His	Glu	Phe	Leu	Arg	Leu	Ser	Gln	Val	Pro	Asp	Asn	Pro	405	410	415
Pro	Asp	Tyr	Gln	Lys	Tyr	Tyr	Arg	Gln	Met	Arg	Lys	Gly	Gly	Phe	Ser	420	425	430
Phe	Ser	Thr	Leu	Asp	Cys	Gly	Trp	Ile	Val	Ser	Asp	Cys	Thr	Ala	Glu	435	440	445
Ala	Leu	Lys	Ala	Val	Leu	Leu	Gln	Glu	Lys	Cys	Pro	His	Val	Thr		450	455	460
Glu	His	Ile	Pro	Arg	Glu	Arg	Leu	Cys	Asp	Ala	Val	Ala	Val	Leu	Leu	465	470	475
Asn	Met	Arg	Asn	Pro	Asp	Gly	Gly	Phe	Ala	Thr	Tyr	Glu	Thr	Lys	Arg	485	490	495
Gly	Gly	His	Leu	Glu	Leu	Leu	Asn	Pro	Ser	Glu	Val	Phe	Gly	Asp		500	505	510
Ile	Met	Ile	Asp	Tyr	Thr	Tyr	Val	Glu	Cys	Thr	Ser	Ala	Val	Met	Gln	515	520	525
Ala	Leu	Lys	Tyr	Phe	His	Lys	Arg	Phe	Pro	Glu	His	Arg	Ala	Ala	Glu	530	535	540
Ile	Arg	Glu	Thr	Leu	Thr	Gln	Gly	Leu	Glu	Phe	Cys	Arg	Arg	Gln	Gln	545	550	555
Arg	Ala	Asp	Gly	Ser	Trp	Glu	Gly	Ser	Trp	Gly	Val	Cys	Phe	Thr	Tyr	565	570	575
Gly	Thr	Trp	Phe	Gly	Leu	Glu	Ala	Phe	Ala	Cys	Met	Gly	Gln	Thr	Tyr			



gctccaccac	tgtgggtcgcc	tggcacacccc	cggggtcacg	ctcgcgggcgc	tctgattggt	1860
tgcgtagggcg	tcggcccacc	taagcctgag	cgccctgccga	ggcctgcgcc	tgcgtagtgc	1920
gcgcggggagg	ggcgggagg	gcgggaggggg	cgggagggggc	ggggctgggc	ggcaggtccc	1980
gggtgcggac	atctggcagc	tggcagtgagg	cggcgtagag	cactgcagca	gcaatgacgg	2040
agggcacgtg	agtcacctcg	ccccgggctc	ctgacgaatg	cggggtgggc	ctaggtgctg	2100
aggagagcgc	gactggggca	gtgggcccgc	ggccggcggt	ggggcggggc	ctgggtcgct	2160
gatggccggt	ggtcctcagg	tgtctgcggc	gccgaggggg	cccctacaag	accgagcccc	2220
ccaccgacct	cgccgcgtgg	cgactcaact	gcgagagggg	ccggcagacg	tggaacctacc	2280
tgcaggacga	gcgcgccggc	cgcgagcaga	ccggcctgga	agcctacgcc	ctggggctgg	2340
acaccgtaag	ttgcttccgc	ggagcgtcag	cgagctcggg	accctgaggg	gtgagccgtg	2400
aggagcacgt	tttctctcag	aaaggcgggt	gggaggaccc	ggccagcgac	gcccattccc	2460
aaggcgagcg	cccacgggaa	ctgcgttcgc	gggccccctc	gcttcagccc	cttcattctt	2520
aaaccacgca	taggagactc	ctaattgtttt	attttttagc	accttatttt	gagataattt	2580
ttgactttata	ggagagttgc	aaagatagtt	gtaactttgt	ttttattcac	aaaaagtgtt	2640
tggatccact	gtcttagttg	tgtgcattgt	aagagatttt	ggtcgtcaga	gtctgcagtg	2700
taaacagggt	ctcctgccga	gccccggcca	ccgagggaaa	ggctgtgccg	ccccctgggc	2760
cctcttttag	aggcccgagt	cccaggccca	ggtcggcacc	cgtgccccac	cctacagtct	2820
gggtgccttg	tttattccag	acatcttggg	gaagttgtga	agaatacatg	actggcaaat	2880
aaagcaacga	aaatgtgcag	ctgttctttt	actttgtcga	gggtgtgatg	tctcatcaaa	2940
gagtttcaga	cttttgatgg	aaacagctga	aacttttaaa	gtaatttaca	ttcactgttt	3000
tgacttgggc	tgtatgtgaa	gagggttcct	ctggccgggc	aacagtcccg	tcagctatct	3060
cttttttttt	ttttcgatct	ctttgcagaa	gaattacttt	aaggacttgc	ccaaagccca	3120
caccgccttt	gagggggctc	tgaacgggat	gacattttac	gtggggctgc	aggctgagga	3180
tgggcactgg	acgggtgatt	atggtggccc	acttttcctc	ctgccaggta	ggagtatgct	3240
gccccagcct	gatggtatgg	ccaccctgga	tcacccttgg	gacccctggc	cagcctgggtc	3300
tagggttttg	atgaagcagg	tgaaaatcca	ggggctcaca	agaaaagggc	tggaactc	3360
tgccctatgt	cagagtcgtc	ctgctattgg	tctaggggat	cagctagcct	tgccagtgtg	3420
gggtgacagg	ctctctgata	agagaagcaa	gtggttctct	agggctctgt	gttgccttga	3480
gggaggagga	aggtgggctt	tgaagtctca	gtacaggatg	ggatggacat	tccaggtgga	3540
aggcccagcc	tatccaagg	ggctgtagg	gggcagagtg	gtgggtgggg	agctgatatc	3600
tgctgtgaac	ttcctcgggg	ctattgcagg	agagcttcag	gttcaggctg	gtgagtagga	3660
ggagcatagc	agttggactg	cctgggtatt	gaactgattt	ggctacacaa	gactattttg	3720
catcctggga	gtgtttctct	acagaaatcc	tcagccttgt	aaaatgggaa	attccctcct	3780
atgaatttat	gcaataggac	ttttttccct	agtgacttgt	aatcacattg	tttcaatgac	3840
gtgaattcct	acataaatag	gttttgtttc	tgtgataact	cttactgata	catcattttc	3900
ttttactacg	ctgactttgt	aatagataga	aagtccttat	atacctttgt	tgcccttctt	3960
tttaaaacat	ctcttacctg	tgtctattca	tttactcatc	caaattgcct	ttatcctgat	4020
tttgtcccag	acttgaaatg	aagttgcaat	aggcttatat	gttagtttgg	gaagagttgg	4080
cctttaacgt	taaaaacagt	tccatgggtg	ttactgtagg	ccaagccctg	ctcaaggcct	4140
gttcttcttt	tagtccttag	aataagccta	atgagataca	ttagaaagct	gaggcacatt	4200
tattccaggt	aaccagacta	gcaggaggag	cactgggatc	cccatctctg	ctttgacttc	4260
tagccctgct	gccacctgga	ctgtacagca	ttgagttttt	ctgtcctggg	at ttgagggc	4320
ctgtccttag	gggaagtcaa	ggtgctcttc	ttcccttggc	cccatcaggg	cctgttttaga	4380
ctgttctcag	ggctcgtggg	aaggcaatga	catagagttg	gtcaggagat	gggtcagccc	4440
cactttgcct	ctgtagcctg	acctgtgaca	ggattggaat	cagggttggg	catgtgcaca	4500
gtgtcaggca	tgcaagtggg	cttggtcagt	ggggattact	gtgttgtttg	ttcttgctgc	4560
tttggtctcg	ggcttagctg	gctgggaccc	ttcctgtggg	ctggctgtga	gttggagttt	4620
ttttgtattt	tttttttttt	tttgagacag	cgttcgctct	tgttccccag	gctggagttg	4680
aatggcacaa	ttttggctcg	ttgcagcctc	tgccctcctg	gtgcaagtga	ttctcctgcc	4740
tcagcctcct	gtaggggtcca	gccccacagg	gtcggtaggt	ttttctccct	gtgtgcggag	4800
atgagagatt	gtagaaataa	agacacaaga	cagagagatg	aaagaaaaga	cagctggggc	4860
ccggggggacc	actaccacca	agacgtggaa	accggtagtg	gccctgaatg	ccaggctgcg	4920
ctgatatttta	ttggatacaa	gacaaagggg	cagggtgaagg	agtgtgagcc	atctccaatg	4980
ataggttaagg	tcacatgggt	cacgtgtcca	ctggacagtg	ggcccttccc	tgccctggcag	5040
ccgaggcaga	gagtgggaga	gagagagaga	gagacagctt	atgccattat	ttctgcataat	5100
cagagacttt	tagtactttc	actaattttg	ctactgttat	ctaaaaggca	gagccaggtg	5160
tacagggtgg	aacatgaaag	tggactagga	gcgtgaccac	tgaagcacag	catcacaggg	5220

agatgggttag	gcctccggat	aactgcggggt	gggcctgact	gatgtcaggc	cgtcccacaa	5280
gaggtggagg	agtagagtct	tctctaaact	cccccgggga	aagggagatt	ccctttcccg	5340
gtatgctaag	tagcgggtgt	ttttccttga	cactgacgct	accgctagac	cacgggtggg	5400
tccgcttgge	aacgggcctc	ttcccagatg	ctggcggttac	cgctagacca	aggagccctc	5460
tagtggcctt	gtccgggctt	aacagaaggc	tctcactcct	gtcttctggg	cacttctcac	5520
tatgtctctt	cagctcctat	ctctgtatgg	cctgggtttt	cctagggttat	gattgtagag	5580
cgaggattat	tataatattg	gaataaagag	taattgctac	aaactaatga	ttaatgatat	5640
tcatatataa	tcatatgtat	gatctagatc	tagtataact	cttggtgttt	tatatatttt	5700
attatactgg	aacagctcgt	gccctcggtc	tcttgccctg	gcaccaaggt	ggcttgccac	5760
ccacagcctc	tcgagtagct	gggattacag	ccatgtgcc	ccatgcctgg	ctaatttttg	5820
tatttttggt	agagacagg	tttcaccttg	ttggtcaggc	tggctctgaa	ctcctgacct	5880
cgtgatcccc	cacccccac	ccccagcctc	ccaaagtgt	gggattacag	gcgtgagcca	5940
ctgcacctgg	ctgagttgga	gcttttcttc	cctctttttg	gactttggaa	aatgctcttg	6000
gtccatgatg	ctatgtagac	agctcccggt	gactgtggcc	tgtgcggcat	tgggcagcac	6060
tctgggtgaac	actgaatcgg	gtctgacctc	ctagccccac	catttactgg	ctgagcctca	6120
gtttccttgc	ctgtaaaatc	aggaagatgc	tggctctgct	cctctctgca	catttccccg	6180
tcctaacaac	attataactg	ttaggaaaga	gacgggcttg	ttttgggatg	gctcatttta	6240
tgtgaccttg	tgcgctgtct	ctgagtcctt	ctgcccttct	tccagggtgt	agggaccagc	6300
cccacagggt	cgggtgggtct	ctccctgtgt	gcggcgatga	gagagtgtag	aaataaagac	6360
acaagacaaa	gagataaaag	acagctgggc	ccgggggacc	actgccacca	atgcatggag	6420
accagtagtg	gccccgaatg	tctggctgtg	ctgttattta	ttggatacaa	agcaaaagg	6480
gcagggtaaa	gagtgtgagt	catctccagt	gataggtaag	gtcacatggg	tcacgtgtcc	6540
actgggacag	ggggcccttc	cctgcctggc	agccgaggca	gagagaggag	acacagagaa	6600
agaaaactta	tgccattatt	tctgcatatc	agagactttt	agtactttca	ctaattgact	6660
actgctatct	agaaggcaga	gccagggtga	caggatggaa	catgaaggcg	gactaggagc	6720
gtgaccactg	aagcacagca	tcacaggggag	acaggcctcc	ggataactgc	gggcagggtct	6780
gactaatgtg	aggccctcca	caagagggtg	aggagcagag	tcttctctaa	attcccccg	6840
ggaaaggagg	cctccctttc	ccggtctgct	aagtagcggg	tgttgttctt	tgacactttt	6900
cgtaccgct	agaccaccgt	ccgctcggca	acgggcgtct	tcccagacgc	tggcggtacc	6960
actagaccaa	ggagcccttt	tgttggcccc	gtccgggcat	aacagaaggc	tcgcactcct	7020
gtcttctggg	cacacctcac	tatgtccctc	cagctcctat	ctctgtatgg	cctgggtttt	7080
cctagggttat	gattgtagag	cgaggattat	tataatattg	ggataaagag	taattactac	7140
aaactaatga	ttaatgatat	tcatatatct	ctaagatcta	tatctgggtat	aactattctt	7200
gttttatatt	ttattatact	ggaacagctc	gtgtcctcgg	tctcttgcc	tggcgccctg	7260
gtggcttgcc	gccacacag	ggcatgtctg	gatggtttga	acactagggc	ttctgatgct	7320
ctaagccaga	gtcagggtatt	cattccatgg	cacatgtggc	tggggtctgc	cctgagacct	7380
gtcccgtgcc	aggctctggg	ggcacatggc	tgatggaacc	aagcatgggg	agtgaagggtg	7440
gaggggtggc	tgtgagcacc	atgcctgaga	ggaccaggct	ggggacggaa	ggttcttagt	7500
ggataatatt	tattgtctct	gcctcccccc	tgacatttgc	aaagcggcat	atgcttgtaa	7560
aaaaattttg	aaacagaaaa	atataaataa	ataagtaggt	attaccacat	gcaagggtga	7620
ccaattttgt	atttttcttc	ccagcagatg	ttaaagcaag	accaacagtc	ttccctcatg	7680
gaaggcccac	tgatctaaaa	tgtctggttc	ttttggacct	tcaggggcact	tgggggagac	7740
cttcttgagg	tgtctgagc	tgtctggtgt	ttctcagacc	cagggtggtca	tgggagccag	7800
gcgtggctga	gtgggctcta	caggccctag	gcaggggagca	tcgcctgtgc	tgtggctgac	7860
gttcttcttg	gccctgttcc	caaagtcccc	catggggggc	tgggagggaat	ggcctttcca	7920
gggggtggtt	ttatgagaag	gaggtagctc	cctgttggag	tgaggtgctc	aggaggaaag	7980
gggcctgggtc	ttagcagtca	tgaccacctg	tccccagtga	ggaacatctc	tcctgccaca	8040
caggcctcct	gatcacttgc	cacgtggcac	gcacccctct	gccagccgga	tacagagaag	8100
agattgtgcg	gtacctgcgg	tcagtgcagc	tccctgacgg	tggctggggc	ctgtgagtg	8160
gcctgcccct	gtgtcactgc	acatgtgcat	gtgtgtgttc	tcatgatgta	ggagatgctt	8220
gggtttccag	gcagctgcca	gggggttagga	gtgattgcag	ctgtgggtgt	gggggtgggtg	8280
aggagagagc	tagcaggcgg	ggagtgggct	gaaggccatg	cagggtggggc	ctcggttcca	8340
catcttttgt	taaatggatt	ttgtggctgt	tacgacactc	ttgagacca	catgtgaaaa	8400
ctgtcagctc	gttatcactt	aagacagaag	aaaattgccc	ttgactctgg	gctggcagca	8460
ggtggagaca	aggcctgaca	gctttcctgc	catgtggcac	acactttggg	agcagagcca	8520
tagcccaaag	tggaccgccc	ttgagctaga	agtgttgact	caggcggtgg	aagggtgtaga	8580
gcaggcgggt	cacggtgagg	aaggagtggg	gggctcagtt	gtcatggggag	gtgcatgaat	8640

tcgtactgca	gagtggctgc	tcaggggtct	cctgtgttga	catgttatgt	caggttaagc	8700
catttttagca	ttcttagttt	tctgaggaaa	ctccacagaa	agttttgctt	tatttcttag	8760
aagtaaggac	agataccggt	ttctcacctg	tcctctgctc	ctgtaggcac	attgaggata	8820
agtccaccgt	gtttgggact	gcgctcaact	atgtgtctct	cagaattctg	ggtgttgggc	8880
ctgacgatcc	tgacctggta	cgagcccgga	acattcttca	caagaaaggt	acggcatgtg	8940
cagcatgtgc	tgggccaggg	gttcgtgtca	actcgataat	gagctctcac	aaacgagata	9000
cagaaagatg	cacttgacgc	tgaacacagt	ggcaaaagca	catgagcagg	gaattttgtca	9060
aagcagaagt	aggcagacac	tgtttaacct	aggcatcatt	ttttaaaaaa	gcaaatataag	9120
agccaggcac	agtgagtggc	tcacgcctgc	aattccagca	ctttggggaga	ctgaggtaga	9180
aggaccactt	caacctaaaga	gttcgaggcc	agcctgggca	acatagttag	acctggtctc	9240
tacaaaaaca	ataaaatatt	agccagggtg	gatgatattg	acctgtagtc	tcagctactt	9300
ggaggctagt	aaggcaggag	gacacttga	gccaggaggt	tctgggttgc	aatgagctgg	9360
ttgtactact	gcactctagc	ctgggtgaca	gagtgcgacc	ctgtctctaa	taaaaataaa	9420
aagccaagca	aactaagaca	accaggtaat	tctgtttggt	tcctgaattg	gcaaaaaactt	9480
aaacgaaccg	tgttaatatg	tcacacctct	ggggggcagc	ctggctgcag	gcaagagcag	9540
ccctggagct	tgcaccttcc	aagctgatcg	tctacctctc	caagcccggg	gctgtccacc	9600
tctccaagcc	cggggctgtc	cacctctcca	agcccggggc	tgtccacctc	tccaagcccc	9660
gggctgtcca	cctctccaag	ccccgggttg	tcttacctct	ccaagcccca	actgtctact	9720
tctccaagcc	ctggctctgg	tacctctcca	agccctgggc	tgtccacctc	tccaagcgcc	9780
aactatcttt	ctctccaagc	cctggcctgg	ctacctctcc	aagccccagg	ctgtccacct	9840
ctccaagccc	caactgtcta	cctctccaag	ccccggcctg	gctacctctc	caagcccctg	9900
gctacctctc	catgcccggc	ctggctacct	ctcctcttgc	ctataggccc	tgaggggcaa	9960
ttccagccca	agggaaatcca	tggctcctgc	tgctccaaga	aaacctagtt	tatgtttgtg	10020
ctctgcagag	cctggcctgg	tcttgtcctc	tgtgtttcac	agaccttccg	tagccagtc	10080
cacctgccct	gctctctgct	gcctgcgcag	gggcctcctg	tcagctcctc	agagaccctt	10140
attatcccag	ggctcgccat	gcactgcctc	cttcgcctgg	agcctcttac	cttccactcc	10200
tgccccgctg	gctcacactt	tacgtgttcc	ttctttgagg	acctcttcc	gacctaccgt	10260
gccagggtga	gtgtcctggt	acgcattctc	atgagatcct	gccttctttc	ttgggtgagct	10320
tgtcactatt	gtcctcagtt	cactgtcagc	ctttgggtgc	gttgatgctg	cgcccccaag	10380
gctgctgtcc	ggttcccacc	acactcctgg	cgctgcctg	gtgaaggaa	gtgttttaggc	10440
tgcactttgc	ctagttagct	tgtgggtctt	tattgacttt	tgcatacctt	ttgggggttg	10500
gagcaggggac	tcctcagaag	catgtttaga	tgggtgtggc	gtgccaggac	tgctgtgtct	10560
gaagtggctc	tggcatgggg	ccagcgtgct	ggagctactc	tggagtctag	ggctcgtctt	10620
gttcccatac	aggaccagtc	tgccaagtgg	agatgacaca	gactggggca	gctcaggctt	10680
ggctcagagg	gagaggctga	gtgtgcgctg	tcacttcccc	accttgccct	ctccaggcgc	10740
atgtgcacct	gggcccctcg	ctcacctgag	cactgagggt	tccttggaac	ttcccaggta	10800
gctgtcttca	tgtgtcctct	cctggggcca	ggggttgcaa	acacctctcc	tggggctgga	10860
cacacacact	cccaggaaag	ccactgggtc	cacctagggg	gccgtgtatc	caggcaagtt	10920
ctcagcactc	tggaaacctg	ttcgcacatg	ggggtcgcaa	gatccacatg	aggctgccct	10980
tgcctcatgg	agagggggcac	acgtgactcc	cagagggtga	agcttcccag	ctagaggcag	11040
tgcagacttt	gctgacagga	agcagatgac	gtgggcctat	tctctccccg	ctcagggtgg	11100
gctgtggcca	tcccctcctg	ggggaagttc	tggctggctg	tcctgaatgt	ttacagctgg	11160
gaaggcctca	ataccctggt	cccagagatg	tggtagtct	gctgttgatt	gggttgttgg	11220
gtcgtgctg	ctgtcccggg	gagtagagtg	acagggaccg	tgggtcagg	gcaggctgtg	11280
acagcagaga	ggggtgggca	ttctgtgggt	gggtggagtt	aggctcctgg	cagaggccct	11340
gatcaagctt	gagtcctgta	ggggtacaga	aagggggagg	ttcccaattg	agcagggaaga	11400
aggctgtgcc	atggatggag	gtaccccag	tcagggtgca	ggcagggctg	ggtggcttcc	11460
ctcttgctgt	ggaagactca	gcactctgtg	aagtgggggg	gtgcccctcc	cccagcctgc	11520
acaggggctg	cctgtgttgc	tgtgtgtgcg	tttgtctcct	ttgtgtgtga	atgtgaagtg	11580
tgtcccgcag	tgacacctca	cctgtggact	cagcgtgtgt	gccttttaaaa	gatcagtgtc	11640
tgtggccagg	tggggtggct	catgcctgta	atcccagcac	ttcgggaggc	cgaggcgggc	11700
agatcacgag	gtcaagggat	cgagaccatc	ctggccaaca	tagtgaaatc	ccgtctctac	11760
taaaaataca	aaaatttagct	gggcgtggcg	gcgcgtgcct	ctagtttcca	gctactcggg	11820
aggctgaggc	aggagaatca	cttgacctg	ggaggcagag	gttaccgtga	gccgagatcg	11880
tgccaccata	ttccagcctg	gcgacggagt	gagactctgt	ctcaaaaaaa	aaaaaaaaaa	11940
gatcagtgtt	tgttttttta	aacagaacca	catactgttt	aaatacccag	caaatcaac	12000
attaatttct	tattatctgg	tgtgtgtttt	ttttgttttg	ttttgagacg	gagtctagct	12060

ttgtcactca	ggctggagtg	cagtggcggtg	atttgggggtc	actgcaacct	ccgcctccccg	12120
gattcaagca	attctcctgc	ctctgcctcc	cgagtagctg	ggattacagt	ctcaggccat	12180
cacgcccagc	taattgttgt	atTTTTtagta	gagacagggg	ttcactatgt	tggccaggat	12240
ggtctcaaac	tcctgacctc	aggtgatccg	cctgccttgg	cctcccaaaa	gtgctgggag	12300
ccatgagcca	ctgctcccgg	ccttatgtgg	tgtctttaac	cagtgtcttg	taacatttta	12360
tggctatcta	ttgaaagcag	tggacatctc	cccagaaaac	actcgtgcat	atgagtttac	12420
cccgttatgc	atTTTTggaa	gtgagaccct	ggaaccacac	agagcccctg	ctggcttcct	12480
tgagtgttgt	gggaaccctg	gtgggggtgt	cccctacaga	gctatcatca	gggctggggg	12540
ggtcccttgt	gttagatgac	tttgggtgcg	gggtgggggg	tgggggggtca	agttagggga	12600
ggcaggaagt	gaaggggccc	ctcaagaaa	gacagcagca	gtgtcctgat	gcaaaggccg	12660
ggggcttaac	cccgaagcc	agtttgggtg	gtgacgggga	ggcacaggga	tggtagatc	12720
accccgggag	gtagacaga	gataccagag	tagggggcag	ggttaggggtg	ccgctacctg	12780
aggcgggccc	tagagcacat	aggttgggag	gtgtcctggg	gccattcaaa	tgcccgtcgg	12840
actctgcgcc	tcgcccgtgt	gtaatgagcg	gcagaggaag	gactgagacg	gcagtcagca	12900
cagctgccag	ggcaggaggg	gtgtgggttc	cacacgctgg	tgctgggtgag	ggcgtctcat	12960
ctgccccact	tggggggggc	gtcggtcagt	gctgccgcac	gggcacgcca	gggtgctgct	13020
tgtcttttgt	ggagttgctt	ggagggtggg	ttgggaggtg	aaaggaggac	cacagacctg	13080
aaccactcca	gctgcgaaat	gctggaagtg	taacccaaaa	tgtgagaaaa	aaaaacaccc	13140
ttttaagtaa	gtgggtgtga	aagtgggcca	aggcctgatg	ccacagtcag	ggagcaggga	13200
aggctcagca	ttgtcacccc	tcacttaagg	atggggctag	catcacataa	ggcatcacat	13260
aaggatgggg	gctagcaggg	aaaggagag	aaaacacatg	aggcacacac	agaccctggg	13320
aagctgggtg	agctgtgcta	acgtcagcag	accagtgate	aaagaccag	gccttggggg	13380
gattccacag	acctacagac	ctacagtttc	ttttttcttt	ctttttcttt	tttttttttt	13440
ttttgagaca	gagtctctcg	ctctgtcacc	aggctgtgtg	cagtggcaca	atctcggctc	13500
actgcaacct	cctcccaggt	tcaagcgatt	ctcctgcctc	agcctcccga	gtagctggga	13560
ctagaggcac	acaccacat	gcctggctta	tttttgtatt	tttagtagag	atgggggttt	13620
gccatgttgg	tcaggctggt	ctcaaactcc	tgacctcaag	tgatccacca	gcctcggcct	13680
cccaaagtgc	tagggttaca	ggcgtgagcc	accgtgcccc	tcctaaagtt	tcttaaatac	13740
acttttaaaa	gtaaacttta	aattttggag	tagtttccaa	tttctggaaa	agttgcaaag	13800
atagccaaga	gtgttccttg	gggcctcacc	accatatccc	cattgtttgat	gttttatgtt	13860
accaaggtac	gtttgttgtg	gctaagaaac	ccacggacaa	tcctaagcat	ttaggagctc	13920
catcacctgg	ttttaggatg	caaaatgctg	accgaactag	gaggtgcagc	tcctcagagg	13980
gtgcacctat	ggttcaactg	tgccccctcag	gagcacgggt	gggaaatgcc	cgcagatgca	14040
ctgacgtggt	ggggaatagc	catccaccag	tgttcgtgct	tgaaggggcc	caaggatatg	14100
atgctggcgg	agggggcagg	cttgagtctt	ggggtctccc	actgactcct	gctgttgccc	14160
caggctgttt	cctgactggg	caccggcaca	ccccccaca	ctctggtgcc	actgccggca	14220
ggtgtacctg	cccatgagct	actgctacgc	cgttcggctg	agtgcccgcg	aagaccgcct	14280
ggtccagagc	ctccgccagg	taggacctca	tcagggaaca	aagtgaaggc	ctctggggct	14340
gggaccacac	gggcctgggg	cttctggaat	ctaaccacac	ctgtccactc	acctggtggc	14400
cctgtggagc	ggagagccct	gtggagcaga	gcctccacct	tcctccatcc	tataataaac	14460
agttagcaag	ctctgcccag	aggggacttg	tgctatggga	cagttagtag	ctgtagccca	14520
gggttccttg	gggggacttc	caggactcaa	gggatgcagg	aggcagatgt	gcactgtgtc	14580
ctctggaagc	aggcctgagg	cgaggtttga	ggtgcaggat	gtttatcagg	cctgccatgg	14640
ggaagaagga	ggggcagagg	gaggaaatga	gcttctgggc	agacctggga	ctcatggagc	14700
tggggagctc	ctcagagcgg	tcctcccata	gggggccttc	atgtgccctc	ggggtcagtt	14760
gctggaggga	ccccaccaca	ggaagggact	ggcccagggc	cctgagggcg	gatgggtggga	14820
ggccaccctc	ctctggtttg	gccaggccta	ccagggtgct	ccaggcccca	aggctcagac	14880
actgccccta	ccaggagctc	tatgtggagg	acttcgccag	cattgactgg	ctggcgagca	14940
ggaacaacgt	ggcccccgac	gagctgtaca	cgccgcacag	ctgggtgctc	cgcgtggtat	15000
atggtgagcg	cctcctgagg	ggccggcagg	gcagcccagg	gtcagggtca	gggtgtcgcc	15060
cactcattca	cgcactcatc	ccctgccagc	ggcactgggc	cacctcctct	gtgccaggcc	15120
ccagggggcg	ggatctcatc	gccctgcccc	tccacctga	gaaccagctg	gtcttctact	15180
ctcaggagtc	cacctgtgct	aagggtgtgt	ggtaggaggt	gtggggcagc	ccctcctggg	15240
caggggaagga	ggagctcaga	gaccaggcct	gggggtgggt	gggaggggga	aaccctgggg	15300
aagggaaggt	ccaggcgttg	cagtgcattg	agctccaggc	tgaggccagt	gtcatggtgt	15360
ctggcatcca	ctgaccctg	tcccctgtag	cgctcctcaa	cctgtatgag	caccaccaca	15420
gtgcccacct	gcggcagcgg	gccgtgcaga	agctgtatga	acacattgtg	gccgacgacc	15480



gattcaccaa	gagcatcagc	atcgggcccg	tcagtgcgcc	tgccccggcct	ctgactgcag	15540
cccctggggg	ttgaggtccg	aaagtgaagt	cctagaggcc	gggctgtgag	ctgggagtgg	15600
ggtttccctg	agcctgggtg	acctccattt	gggaggtggc	cctctgatcg	cacaagtgtc	15660
tgagggcttc	tgctcctggac	ccctgcacgc	ccagctcagt	gaagttgccc	caccacactc	15720
gacccccgcg	ttccgtcccc	caccggctct	tgctcctcagt	gtgcctggac	actctcctag	15780
aggccccctc	ctgagatcct	gctggctagc	tggttagctg	ggaggggtgc	tttttccctca	15840
cttggttccc	tctcccaaaa	cagttcatca	ttcgccattc	tcccgtgggg	tttagacatg	15900
cccaggggtg	gtgggagtag	caggtgccac	tcttgattcc	tccctgcctag	ctagggactt	15960
ggagctctca	cctctgtggg	gcctgcaggg	gtccaggtgt	ggccagttca	gtgaccttag	16020
agggtgcaat	ccccgggctg	tgctgggtgc	tgccgcctc	ctgacagagt	cagcaggccc	16080
tggtctgtgc	tgacagctgt	gccgtagctg	tgccgcctagc	tgctgcggtg	tagtgggttg	16140
gcttaggcag	tctctggaca	tacccaggtg	gcactggggc	actgagtcct	acctgacac	16200
tgcatctcgg	atcttctggg	cctcatgcca	cctcagtgga	tcacaaatcc	tgactgaccc	16260
tgacgcggt	cccttggttt	ttgctcagca	gtgatgtggt	tctttgtggg	ttttggttta	16320
atcccatata	gagcacatct	gtactaaacg	cattagaaac	atgcttgcaa	ttggatcttg	16380
acttgtgaga	tgcataagta	aaaagttggg	ggcctctgga	acattctgtt	ctgaggaaga	16440
aggggggcaa	gtggtcccta	ctgctacagt	cctgtcttcg	catctcttcc	tgggccccctc	16500
aggccctgtc	ctctgtcccc	tgtgttgtct	ctaaggcacc	tggtagccca	tgccccctctg	16560
gtttctcctg	gaacccctcg	cttctccctg	gtggagtgtc	gctccttctc	acagccctaag	16620
gcaggctgtg	gccttggccg	acactgcctc	tgtctgagtt	gggtcctggg	gacacagttg	16680
ttgcccattc	tcgctcagga	aatgcctgtt	agagcagaag	gccccgtgct	tggtccctgag	16740
tgatctgcac	ggcactttat	gcctgggggc	tgctgtggat	ctggacgaga	ccttgtccct	16800
ggaggtgct	gtgggtcttg	agcggagcct	tgacagggct	gtctctcctg	cagatctcga	16860
aaaccatcaa	catgcttgtg	cgctggtatg	tggtggggcc	cgctccact	gccttccagg	16920
agcatgtctc	cagaatcccg	gactatctct	ggtgagtgtg	gctgggatat	gctggcgggg	16980
cctctcacga	agactggatc	tgagccccag	ctgcatccca	gtgagggggc	ccccacggtg	17040
ccatctggga	atactgccag	ggaataacct	caggaaccag	cagtgtcagg	gcttgtggaa	17100
gccactgagg	gttgtctttg	aattggaaga	tttgccaccc	agtggaaagt	tggggtgttc	17160
ccagaaggta	gagtgaggaa	gggggtggtg	ggtagcaggg	caggttcagg	ttggcatcag	17220
gaggcctgtg	gacaagggga	gcttgtcagc	catggactgt	gccttgagg	tgggggccct	17280
gtcatggagg	gcagagagcc	gtcccatggt	gggaagcttc	cgctgtacag	gcctcttccct	17340
ctggtgcctc	agcactgcac	gagggcgcca	gggctggcac	agcctggggg	cggggagcct	17400
cccgtgccc	cttgcccttg	gtgtggccct	tctgggtgag	tgtgtcctgt	tttccataga	17460
gtgtggccct	cacccccagg	agcccagcag	cccagctggg	gtggcatcca	ggccagtgcc	17520
aggcctcggg	aggggacaga	cggcctctct	gggacctcc	tgagtgcagg	gtctgggtag	17580
cagctgggct	tccagctttc	tccttgcaac	tgaactgggc	ttttttctcc	tcacaggatg	17640
ggccttgacg	gcatgaaaat	gcaggtaaag	gctgcgggac	tgccgctgca	tgcttccctt	17700
gcaatcatgt	ctccccctta	ttatctttcc	tttgggggtc	agaaataact	cctcctggac	17760
caggtcccgg	cagcgtgcga	ctagaggtcg	agtcagttga	ggcctctggc	cgtgtccctg	17820
tggtgtctgt	tggtctctgt	gtgggtgccc	accgttctcg	atgtctgtct	gcagctgtcc	17880
tggttgcttt	ttgccctgat	gatctgagtg	ggctcagctg	tgtaacgaca	gacccagagc	17940
tgagaagct	ctcatcttgt	tactgtggca	ggaggtggct	ctggttagtg	ggggcttctc	18000
ctccatgcac	tcttaattta	aggggcttct	tcttaaagg	cctgggtgga	caggacagga	18060
gcctggagga	ccgtgggtgg	gtgtggccgg	gcctgggagc	tccccgtgga	cttggcctga	18120
gtgggtgga	acccagtcag	gaggggcacc	aagcacaagg	agaggggagg	ccgggtggat	18180
cctggctgac	cctggctcctg	tctgtgctct	gggggcccctg	tagaccgcag	tctgtccga	18240
ctgggctgag	cctgcgcccc	tctgtgcgtg	tcagaagccc	agacagtgtt	gccctgtgtc	18300
ttgtggtcta	aggagggtta	cggcctgcgg	tgccctgtctt	ctgtccccc	cctgattcag	18360
tgtggaaatg	tggagtctcc	agaggtgtcc	tggtgtgcac	atttgggatg	gatacacgtg	18420
ggcccagcac	tgccgccccc	agggctaccc	ttggtgccag	gtgccccag	ccacgagctt	18480
ttaccagct	ggccttgagc	tccccagagg	ctccccggac	actgtccgtg	ttttgtgaaa	18540
aggttttcaa	aacacatgta	aagtggaggt	gagtagcaag	ccctagagca	ggccctggcc	18600
tcctgcccc	tcctgttccc	ctccctgccc	ctccctgccc	agcgtccct	cagcaccgac	18660
tcacagctgc	acctcaagct	gatgagggcg	tctgtgtttt	gacaaaattg	ctctgaggtt	18720
gtcacacca	acaaacttat	gacggttcct	gagtgtagtc	ctcacgttgt	ggctgggtgtt	18780
tgtgaatcag	gattcaggcc	aggcctgcac	aggccttcag	ttgttggtct	ttgagctcct	18840
gttagtccag	ccgtctctcg	tggtctcttt	tctcctcctg	gaaggtttgt	tcctgaaggg	18900

cttcacattg	cagatctgac	tgggtgcttc	ttatgttccc	tgagtttttg	taaactggcc	18960
aggccctgag	gctcgatccc	attgtgtttc	tttggcgaga	atgcttttct	ggtgggtccct	19020
gccttgctcc	tccagtgcac	gatgtctgga	tgcctctgcc	acacaccacc	ccctgcccag	19080
tccccatgtc	tgtctgggtc	gtgcccagct	ctgtctcact	aggggttggt	caccggccct	19140
ttgaactgag	accaggctgt	gtacctgtga	gccagctcg	gggtgagatt	tgagggtggag	19200
ccttcccagc	cctgtgcaga	attcccatca	cctccaggtg	tactcagaaa	tggggatcat	19260
tggccagggtg	cggtggctca	cgctgtaat	ccctacactt	tgggaggcca	aggtgggagg	19320
atcacaaggt	caggagatag	agaccatcct	ggctaacacg	gtgaaacccc	gatgctacta	19380
aaaaatacaa	aaaaaattag	ctggatgtgc	tggcaggagc	ctgtaatccc	agctactccg	19440
gaggctgagg	caggagaatg	gcgtgaaccc	aggaggcgga	gcttgacagc	agctgagatc	19500
acgccactgc	actccagcct	gggcaacaga	gcgagacttc	atctcaaaaa	aaaaagaaat	19560
ggggtcattt	ccaggcatca	ccatgactga	ggtgcgccac	tgtcattggg	tgagagcagc	19620
tggatgctct	atgtgtagg	gctggagcct	ctgagggatc	gtccagtcct	agaagtgtcc	19680
tcagagggac	actgtcctgc	ctgggtggccc	atgaagaaag	ggagggtccc	ctgagtcctc	19740
ctgacgtgtg	tctgcctgca	gggctcagcc	ttctctgagg	cccttgtag	ccatgagggg	19800
tgcccagggc	tcagagcctg	aggctgagcg	ttggctgggt	gggagccccc	acacctggcc	19860
ctcaggcgcc	cattggatcc	tggaggcagt	ggctgggagt	gggaggggct	gcatctgctg	19920
ctgtaacacc	atcctttgtg	tgtagggcac	caacggctca	cagatctggg	acaccgcatt	19980
cgccatccag	gctctgcttg	agggtcgtgg	ctccttctct	tttctcagcc	tcagctgacc	20040
ttcctgtgca	cgtaagccca	cgcattccacc	tgagggcagc	actgctggcc	acacacttgc	20100
cactcctcga	tacttccagt	gacctgggct	ctggcctctg	gcttcagagg	gtcgtgctgt	20160
ggagggggcg	gccttggcca	gcagccttgg	gtgttgggct	gggtcggggg	ccttgggagg	20220
gcaggggctg	gaggctgtgt	gagaagggga	gtctgggtga	ggctgtttct	gagagtgcag	20280
gcaggagtgg	gactccaggc	tcttcttaga	actggaactg	cttggggccag	gcacgggtggc	20340
tcacacctgt	aatcccagca	ctttgggagg	ccgaggaggg	tggatcacga	ggtcaggagt	20400
tcaagaccag	cctggccaag	atggtgaaac	ccgctctcta	ctaaaagtac	acaaaaatta	20460
gccaagcgtg	gtggcgggca	cctgtaatcc	cagctacttg	ggaggctgag	gcagagaatt	20520
gcttgaaccc	gggaagtgga	gggtgcagcg	agccgagatt	gtgccactgc	actccagcct	20580
gggtgacaga	gagaggctcc	gtctcaaaaa	aaaaaaaaaa	aaaaaagaac	tggaaactgtt	20640
tgttatgggc	attctcgagc	cagtactgga	gaaaaacgag	agtggatttt	tatgccgggtg	20700
ggaatgaggt	aggtgggatt	ctgaagggtg	ttctggagag	ccctgagggc	tggggccacgc	20760
aaagggcctg	cctacacagg	gtgctggaga	ccctctgggc	atggatgctg	gccaggcagg	20820
ggggtgctgg	catccataaa	tgggtctcctg	cgcccttcca	tcttcagtca	tatctcatgg	20880
acttttgcctg	ttttgtcttt	aaaggtaagt	gcagcaggag	accctggcac	tctctggaga	20940
tgtctgctgg	tttgattctg	gtccccgggt	ggggcaggat	gtggccagga	ccatcgggaa	21000
accagcgcag	ccatgctggc	cgtgcaaggg	cagctgagcc	tctctgtcct	gctgtctctt	21060
ccaggcgggc	gggcaccaca	ggcccgagtt	ttcgtcctgc	ctgcagaagg	ctcatgagtt	21120
cctgaggctc	tcacaggtga	ggccgggtgcc	tggggctctg	agggggctga	agagggggat	21180
cagggtctgg	agctcctgca	ggcagaagtg	cccacctcac	ctccacctg	ccctatttcc	21240
tgcactgggtg	tttcagggtc	acccccaccc	tcccatcccc	tccctagccc	ctgctccatc	21300
caccggctct	cctcgggctg	gcctcacctg	gggcagttct	ctgaggcctg	cagggtgctg	21360
ggggtgctgg	cagtttctgc	gtcctgctca	tgttggagcc	actgtgtgca	agggccaggc	21420
acgggcaggg	gctgtgtacc	ctgagctgca	cagcctacac	ggcacctcca	tgtctctgaa	21480
gcaccttctg	cccatggagg	tgacgccagc	ctgtggactt	gccctcctga	gactgtttgc	21540
agcaaaagcc	ccggtccctc	ctgccagatc	agctgcccac	agaccctgcc	cgagcccata	21600
gtttgacctc	agtgtctctc	acacgtgcct	gcaccccagt	ctgcagccac	agtcattcca	21660
tacatgcgcc	ccaacctccc	gtgtctccca	cacctgtctc	cggccacggc	ctcagccagt	21720
gtccctctgc	ctggaaccgc	tgccccccag	ccccgtctcc	ctcccttcag	ctctcactag	21780
gacattgttc	tgcagggtct	ctgggtcttc	ctggcctctg	tgtggccaag	gctggcacc	21840
atcttgggct	caagcagagg	aggggcattg	tctgtctgtg	cctggcccaa	tggcggcctg	21900
ctcctgctcc	tgcctcctgc	ccaggacttg	ctctgggtga	tggggacttg	gggaggctga	21960
ctgaacccta	cggcactcca	ggcctcttcc	cttctcactg	aggtgagaga	ggcagccaga	22020
agctgagggt	gttcaggagg	cattgggggc	gcctggcaca	gagcacaccc	gcagagacct	22080
gggccccctc	cctgccttct	ggccgggtgg	gagatcacag	gggagtcagg	tgtgactcc	22140
cagtcccgtc	tgggctgggt	tgagccctcg	ctggccagtc	acgtttccca	gcagctgtgg	22200
gtgggtgagct	aaacaggtgc	aggccctcgc	gcgcctcgca	gcaccagtgg	tggctgtggc	22260
cggcagagta	agctcccagg	cacgttctgc	ctctccagtc	ctgccagtc	tgtctcagcg	22320

atgtcccaga	tggggacgtc	ccgtggtgac	gtgttctctg	cttccacatt	tgcctcgat	22380
gctgcccagg	tcccagataa	ccctcccgac	taccagaagt	actaccgcca	gatgcgcaag	22440
gtatgcgggga	gccagcccca	tccctgtccc	gtcccccagg	ggaggccgcc	ctcagcaggg	22500
tgggtccttc	cctctgaagg	gggggctcct	ccctggggga	ctcctccctt	ggcgtttttg	22560
ggtgtcctgc	tgtggtggat	gcctggccta	ggggctcatg	cttcatgttg	ctgagctgcc	22620
tggcacatgg	aggcacagtt	ggcttgacaca	cacagccgtg	cctcagagca	gttccagtgg	22680
tcacggcaca	cacaggcttc	agaaggacag	ccgaagtgtg	gccagtgtgt	ccggggaagg	22740
cagaggaaaag	aagtagacct	cagagccggt	gtgggctgtg	accacaggtg	cagactgtga	22800
aattaggcat	ggaccagct	gctgctgct	gtttacaatg	ggggtggggg	gcacctgggc	22860
cccattcctgt	ccgtcgtgag	atctgcaggt	gttgagggtg	tgagctgcac	ccctgagggg	22920
ccctgtgctg	gaagctggag	gtctgtcttg	atgtaccag	cttggggccc	tggctgcacc	22980
cacacctttg	gtggctgggc	ccctgccctg	accgggtgct	ctgtggtggg	gagggatgcg	23040
tgcggtctg	gggaggttct	gagaactggg	gtgtggacac	ccccagcctg	gagtcattggc	23100
ttgtgctctg	cagggtggct	tctccttcag	tacgctggac	tgcggctgga	tcgtttctga	23160
ctgcacggct	gaggccttga	aggctgtgct	gctcctgcag	gagaagtgtc	cccatgtcac	23220
cgagcacatc	cccagagaac	ggctctgcga	tgctgtggct	gtggtaaggc	tgtggtccca	23280
gcagccccgt	ccatacctcg	tgtcctgcag	atgagctgcg	tgtcacttc	cactcctgtg	23340
ggctccagcc	cagcacacag	tccggccagg	ccgtaggagc	ttgtccttgg	atggtgtcta	23400
tatgtggaga	actgtgagct	ctggctggac	ccctaggggc	cttgcctggg	tgtgtgcaca	23460
gggccccgca	ctgcggagct	ggtgtccagc	ccagccaccg	atacttgggg	gagccggcgt	23520
ggcccccaag	gtttctctct	ggtgggttcc	actgggtgtc	tgaagaggga	atttgttggg	23580
gttggttttg	gtgccacatc	ctttcagcac	atctggcttt	tgtgtgtgtt	tcccagtggg	23640
gacctgccc	ttttctggca	gcacagactt	ggtttctaag	tcattgggcac	gtgtgggggc	23700
atgttccctg	gtggctgtgc	atggaggccc	tgacagatga	ggttgagct	gctgcttggg	23760
gcacccgagg	gcttggttaa	cgtggaaatc	agctctccgc	cccctgttcc	tgccccatcg	23820
gttgtcagcc	ctagtgttgc	ctctagagag	ttccgctgtg	ccctgggcgc	ctgtgtgtgc	23880
tcagcacatg	ggcgagttct	agggtgctct	ctgtgatttc	agctgctgaa	catgagaaat	23940
ccagatggag	ggttcgccac	ctatgagacc	aagcgtgggg	ggcacttgct	ggagctgctg	24000
aaccctcgg	aggctcttcgg	tgagtggctg	gccagcactg	cggcgcgcaa	acccggggct	24060
gggtcagact	gtggtacaca	aacctggggg	ccagcttttc	ccccttgccc	gaggctgcaa	24120
gggcccagg	tcaccggcag	atctgtctgg	agccctccct	cagcccaggc	tgttctgcgc	24180
tcctccatcc	cccggggttg	caggatcctt	gtgttgtgga	taggagggca	tcaggtcaga	24240
cctaggggac	agtggagggt	tccagtgaga	tccacagcct	gggctgggtc	ctgctcagtc	24300
cacagggtct	gtgttctgtg	gaggctgctg	tgtatccaga	gcgcctgcag	ggagggtgtct	24360
ttggggactg	tggggactgt	ggggacccat	gccatgggca	gtaggctgct	gtgtgtgcat	24420
ggttgccacc	gtactggtct	tgggggagga	tctcagccct	ggtccacctc	tgggcacctc	24480
acataccgc	cttcttggtc	ccctccacat	cacacatggc	tttttggggg	ggggtcgag	24540
ctttctgctg	tgttccccctc	atcttcgctc	tcaggtagca	cagggtgtgtg	tcttggaacca	24600
gccggcggtt	gctctggagg	ttggtcaggg	aggcagcgtc	cgggcccggg	ctcactgcaa	24660
cactcttgct	tgttgtggct	ttgcctgagc	tgacagacct	gggcagccag	ggtgaaacc	24720
aacacttgg	tcttccctcc	ctttcccagg	ggacatcatg	attgactaca	cctatgtgga	24780
gtgcacctca	gccgtgatgc	aggcgcttaa	gtatttccac	aagcggttcc	cggagcacag	24840
ggcagcggag	atccggtaag	gagggtctca	gccattcagt	gtgggcgctg	ccaagtcggg	24900
ggccaagacc	cagacgcac	attctgtgac	acggccctgg	tggcccatct	cagaagcgaa	24960
actcatggaa	acatgcaaga	ggcttcggat	gttgtggaat	ccagtcatat	gccctaaagc	25020
atacaaaaata	tctgttaggg	gtcagaata	gcacagttat	gatacaaaaa	tggattttct	25080
ctctctttta	ataatgttaa	gaagacatca	catacctgac	tccaccgggtg	tcccagaaac	25140
ggtttttaag	taacctttcc	tgttgaaggg	tagcaagtat	tcagaaaagt	gtacaggttg	25200
gtcttcttga	agcaaacagg	aagcgaacag	tgccagcatt	agacatggtg	acaccaccag	25260
agccctcggc	ccgccccatg	acggggccgc	ccacatgcct	gccaggctcg	gggtgtctgt	25320
tgctcgcttt	ggatcttgtc	taggtggact	cctgagggtg	ggaattcgtg	ttgccttctc	25380
ctgctctcct	gctctcctgc	tcgcggttag	tcagggtggc	cgggtaacag	cagcgttctc	25440
tccctcgggc	cttcgggtga	acacagaatg	ccgcgctatc	cagctgcctg	ttctcagcac	25500
ctgggaggat	ttcagtctgg	gttattatga	agcatctact	gtgaacactc	ttgtacttat	25560
cttttggggg	cacctgggta	cccatttctc	atggtcacgt	acctaggagt	ggcattgctg	25620
tgttagaggg	tacgttatag	ggtatgtgat	ttttgtagg	tcttctttat	cctatcacga	25680
ttacattttt	ttacttttgt	tcaacctgg	gtagactcac	cttggtcaca	atgcactgtc	25740

ctttttatat	attgctagat	tcaatttgaa	gaatattttg	ttaggatttt	agcaactctg	25800
gttacaagag	acgctggct	ataatttttt	tttctttata	atgtttttgt	caggttttcc	25860
tgtaagatg	atgctggact	tagaaaagca	gttggaatat	gcttttaaaa	tactctttgg	25920
aagaatttat	gtaatatcca	taatatttct	gccttaaagt	tttgggaaaa	attaccggaa	25980
atgccagttg	ggcctggaga	tttctttgag	gaaagttttt	aaattagaag	ttcaatttct	26040
ttctttcttt	ctttctttct	tttttttttg	agatgggttc	tagctctctc	actcaggctg	26100
gagtgcggtg	taattttctt	aatagtttat	aggactgagc	agattttcca	tttttgatc	26160
agtctgggga	gtcttcccat	ttccactcag	ctttacactg	attcatgcaa	agttgttcag	26220
tgctctctta	gatggctctg	agcccaacgc	tgacatcctc	ctcttccttc	tgagaatctt	26280
atactgatct	tttgaaaaaa	aaaaaatctt	agtctttgat	tctgttttta	aagagacttt	26340
atttttgggt	tcatcaattt	ctattgtttg	ttattttctt	tctttcttaa	tttttttgag	26400
atggagtcct	gctctgttgc	tgaggttggg	gagcagtggc	gtgatctcag	ttcactgcaa	26460
cctccgcttc	cgggggttcaa	gcgattctcc	tgccctcagcc	tcccagtag	ctgggactac	26520
aggtgctgac	caccatgact	ggccaatttt	ttggatattt	tattagagac	aggggtttac	26580
catgttgtcc	aagctggtct	tgaactcctg	acctcagggt	atccaccttc	cttggcctcc	26640
cagagtgcctg	ggattacagg	tgtgagccac	cacactggcc	tttgctattt	tctttctcct	26700
ttatttttct	aacttgaata	cttagatatt	tgattttcag	gcttttattg	aaatatgaat	26760
ttgaggctat	aaatgagttt	tgagatatca	ttcagttaaa	tgtgtgttct	ggtgcttgct	26820
gtggtagcac	agatactaaa	agtgttttct	gtttctactg	ttcttctctg	gcccattgag	26880
tatgtgggag	tatgctgctt	cattttacaat	ctgagaatgt	tctgggtgtg	tttttttgga	26940
agccgtggat	ggagcagggg	ttttcttgtg	cttcacagg	gcagctagga	gggactgtg	27000
tccagggtct	tctgtcggcc	tggcgtggcc	cttggccatg	tgctgctctg	cggcatgagg	27060
tgggcgtgag	ttgtcctcag	ccacatttag	agaattggcc	ttttaaaaaa	tagatcatct	27120
tttaaaaaatc	actgtaataa	aagtaaagca	ggttcttttg	aaacaagact	tgcaaaaatac	27180
agagaagcgc	aaagaagaag	ctaagtcgcc	cctcctcgcc	cctgaaggag	aatctgctgt	27240
tgctgttttg	tctccacatt	tccatggcgg	cttgcctgcc	ctttcacgcc	tgggccactt	27300
tgtgcctggt	gaggtttcta	aaagccccc	ccttgagcgc	gctcctccag	cacgagcagt	27360
aatggcacag	gtgttgtgtc	attttactca	gtagcctctg	ggttattttt	cagttttcct	27420
tgttgttttt	tagcttttcc	ccattttaac	cttaactggt	attttcttgt	taaataattta	27480
ttcatgacca	ttattattcc	ctagagccac	atggcttggg	gtccacctgc	ctgggtccgc	27540
ccccatccct	gccccctctg	gctgtctgac	ctggcctggt	gacttctctt	ctctgctcat	27600
ctctctccct	gcctgagtg	gcaagagtag	agcctcacag	agtgggtggg	ttgtgtgaga	27660
tgccacaggg	aagcacatgt	cagttgttgt	cactgtgtag	aacaatgagt	cccggatgtg	27720
gcccgcaggg	gagcaatggt	gacttaatcg	cgggcttcc	ctgcatttct	ttgggtgactt	27780
ccaagctaga	acattctttt	tttgtttatt	tgtttgaaag	agggctctac	tctgttacct	27840
aggctggagt	gcagtagcaa	aatcatggct	caccacagtc	tcaaacttcc	gggctcaagc	27900
aatcctccca	cctcagcctc	ctgagtagct	gggactacag	gtgcatacca	tcacctgtgg	27960
ctaatttttt	aaatgttttg	tattttttta	atgttgctca	ggctggtctt	gaactgctgg	28020
gctcaagcaa	tcctcccacc	tcggcctccc	caaatgctgg	gattacagag	tgagccacca	28080
cacccagcca	tttttaaaat	tttcaccagg	aagttttttc	tttcattttt	aagcacagta	28140
agtattttgt	tattatgtta	cagatatattt	ccctcaatt	tctttgttct	ttttatctct	28200
ttagggagta	tgaacataag	tttttaactt	ttaaatgggt	aaatatatta	gtgtgatttt	28260
tatattaaga	ttttattttt	ttttattttt	ttttttttga	gacggagtct	cgctctgtcg	28320
cccaggctgg	agtgcagtgg	cgggatctcg	gctcactgca	agctccgcct	cccgggttca	28380
cgccattctc	ctgcctcagc	ctcccaagta	gctgggacta	caggcgcccg	ccactacgcc	28440
cggctaattt	tttgtatttt	tagtagagac	gggttttcac	cgtttttagcc	aggatggtct	28500
cgatctcctg	acctcgatg	ccgcccgcct	cggcctccca	aagtgctggg	attacaggcg	28560
tgagccaccg	cgcccgccct	atattaagat	tttaaacttg	ccgggcgcag	tggctgacgc	28620
ctgtaatccc	agcacttttg	gaggccgagg	cgggtggatc	acaaggctcag	gagatcgaga	28680
ccatcctggc	taacacggtg	aaaccttgct	tactaaaaat	acaaaaatta	gccgggcgtg	28740
gtggcgggcg	cttgtagtcc	cagctactcg	ggaggctgag	gcaggagaat	ggcgtgaacc	28800
cgggaggtgg	agcttgacgt	gagccgagat	ggtgccactg	cactccagcc	taggcgagag	28860
tgcaagacac	cgtctcaaaa	aaaaaaaaaa	gatttttaac	ttacctggag	agtttttgag	28920
atacagtttg	gagttgcaag	ttactttaac	actatttata	tggaaatattc	tattttacta	28980
gacagactta	aattctccct	taaattcaca	aatttataga	aaagttacaa	aaatactgaa	29040
aagtgtcct	gtttactctg	actagaattc	tttagtgggt	ggcaccctac	cctgagggct	29100
tcatgacctg	tcctcccaca	tgatccaggc	tctaacctca	gggcttcatg	acctgtcctc	29160

ccacatgac	caggctctac	cctcagggct	tcatgacctg	tcctcccacg	tgatccaggc	29220
tctaccctca	gggcttcatg	acctgtcctc	ccacatgac	caggctctac	cctcagggct	29280
tcatgacctg	tcctcccacg	tgatccaggc	tctaccctca	gggcttcatg	acctgtcctc	29340
ccacgtgac	caggctctac	cctcagggct	tcatgacctg	tcctcccacg	tgatccaggc	29400
tctaccctca	gggcttcatg	acctgtcctc	ccacatgac	caggctctac	cctgaggact	29460
tcatgacctg	tcctcccacg	tgatccaggc	tctaccctca	gggcttcatg	acctgtcctc	29520
ccacatgac	caggctctac	cctcagggct	tattacctg	tcttcccaca	tgatccaggc	29580
ccattctttc	ttgaaccatt	ggaaaggaat	ttgcagatag	gatgtgtacc	cctaactgcc	29640
tgagtatttc	ttagcagggtg	tattcttttg	tgcaagtgtg	agtcagaatg	ttaatgttga	29700
tgaaatacta	atctgcaggc	ctaattgttc	caataatgtc	ctttatggca	aaatcttccc	29760
ctcaagcttt	aatccaatat	catgggttgc	atttgtttat	ttttaattat	ttttcttttc	29820
ttttctgttt	ttccttacct	ttctcactgt	gcacatgggt	tgcatttagt	tatcacattg	29880
acaccctttt	aacctgggaat	aattccttaa	tctttccttg	tgtttgatga	ctttgtcatt	29940
tttgaattgt	tccacaagtt	attttgtaga	atatcctcag	tgtttttttt	tttctgggtg	30000
ctcgtgatta	gattcagggt	atgaaactac	atttttgtca	ggaagattgc	agaagaaatg	30060
gggccttttc	ctgcacctta	ccaggaagca	cacaccaact	ttgatccctt	gattaagggtg	30120
atgaccgctg	tacttagttt	ctccgctatg	aagttgcttt	ttttttcttt	gtggggagac	30180
agtttttagac	tatgtaaacg	tcctattttc	catcatactt	atacctgtta	gtgttagcat	30240
ttgatgatga	ttcttgcctg	aatcaattat	ttgcataatg	cttacaaaat	tatcattcct	30300
tccatatgta	ttagttgggtg	ttcttccaaa	agcttttctc	ttgcctctgt	ttatttactt	30360
atttatcact	gtggacgcac	agattcttac	gcaattgatt	ttgatactga	tctcatagct	30420
agacaatttt	gctaaacttt	taaaaaaatt	tatgtacttt	atcttttata	gcagctttaa	30480
atttacagaa	aatttgagtg	gaagatgcag	tgttcccata	aagccgctaa	ctcctcgcac	30540
cttccctcaa	gtttccccag	tactaacatc	ttgcattcaa	gtggtgcggt	tgcaacattc	30600
ataaattatt	atcgtccaga	gtccattggt	tacattcage	ttcctcttca	tgttgttcat	30660
tctgtgggtt	cacagatgtg	tgatgcatgt	gccaccact	gcagtgtcac	acaggatctc	30720
actgccccgg	agtcctctgc	gctgtccccg	cctccagaac	cccttagtag	caaacactga	30780
tatttttact	gtctccatag	ttttgccttt	tcagactgac	ctatttcaact	tagtaagaag	30840
catttaagat	tcctgagtct	ctttctatgg	ctcaatagca	catttctttt	tagtgctgaa	30900
taataattcca	ttgtctggat	gtaccacagt	ttattcattc	acctactaag	gtgaatgtct	30960
tgcttgcttc	caagtttttg	caactatgaa	taaagtgtct	atcaatgtta	gcgtgcacat	31020
aagttttcag	ctcatttggg	taaatgccaa	gaagcatgat	tgccgggatcc	tatggtaaga	31080
gtgtgttttag	ttctgtgaaga	agctgccaaa	ctgtatctta	agtggctgca	ccatttgcgt	31140
ttccaccagc	aatgatgagc	gttttgttgc	tcacatcct	caccagcatt	tgctgttgtg	31200
ttttgggttt	tagcctttct	aagagggtgtg	tagtggtatc	tccttgtttc	aatttgcaat	31260
tcctaataga	cattatgtta	aaatcttgtc	atatagttat	ttgccatctg	tgtatctttt	31320
tcagtgatgt	gtcctttaaa	gtctttggct	cattttttaa	ttaaattttc	ttattgttga	31380
gttttagttc	ttcatatatt	ttggctgcca	gtcctttatc	agatatgtct	ttcgcaaata	31440
ttttctgcct	gtgtcttgtc	ttttcattct	attaacagta	tcttttgcag	agccagtttt	31500
catttcaagg	aagtccagct	tatcaatggt	ctctttcatg	tatcatgttt	ttgggtgtgt	31560
atctaaaaag	ttactgccaa	gcccaagggt	acctagattt	tttctctgtg	tatattctag	31620
gattttttaa	gttttgcatt	ttacatctag	gtccatgatt	catttttgagt	taacttttgt	31680
gaagggttta	tggtttgtgt	ctagattttt	tttttttttt	tttttttgca	tggtgatgtc	31740
cagttgtttt	ggtaccatct	gtcaagaaga	ctcttttttg	gtcattttgt	tgcccttgtt	31800
tctttgtaaa	aaatcagttg	actgcatttg	catgggtcta	ttcttgagct	ctctgttcca	31860
ttgcattgat	ctgtttgttc	ttctcagcaa	tcccacactg	ccttggttcc	tgtagctctg	31920
tagtaggcct	tgagtcagct	taccgcccct	gttctcactt	cagtgttctc	ttcaatagtg	31980
ttttgactat	tctagggttt	ttccctctcc	atatacattt	tagagtcagct	ttgtcaatag	32040
tttacaaaat	aacttgctga	gactttgatt	gggattacat	tgaatctgta	gctcaagttg	32100
gaaagatctt	ttatttcttt	catcagaatt	ttgtagtttt	catcatatat	agatcttgta	32160
catattttgt	tgtttataacc	taaggatttc	attttttttg	tgctaatagt	aatggcggtg	32220
tgtttttaaa	gtcaaaaatct	aattgttcat	tgctggtagg	aaaacaactg	accttttttt	32280
ttttttttta	gggacgcagt	cttactctgt	tgcccaggca	gagtgacagt	gtgccatcat	32340
agctcactgc	agcctcaaac	tcctgggctt	aaggaatcct	cctgtctcag	cctcctgagc	32400
agctaggacc	acaggcatgt	gccactacgt	tcagctaatt	tttcaatttt	ttttagagag	32460
tgggatcttg	ctctgttgcc	caggctgggt	tcaaaactcc	gtctgctttg	agatgattat	32520
atatttgtgt	cctttgttaa	tttagaggat	tattatggat	ttttctaatg	ttaagacacc	32580

tttgtatttc	tgagatcgac	cttagtattg	gtctatat	aagacagtat	tcagtttctc	32640
agttgttttt	tgtttttttg	tttttttttt	tgagacagag	tctctgtctc	ccaggctgga	32700
gtccagtggc	acaatctcag	ctcaccgcaa	gctctgcctc	ccggattcac	gccattctcc	32760
tgcctcagcc	tcccagagtag	ctgggactac	agggcgctgt	catcatgccc	agctaatttt	32820
ttgtattttt	agtagagacg	gggttttcacc	atgttagcca	gggtgggtctc	aatctcctga	32880
cctcgtgatc	tgcccacctc	gatctcccaa	agtgtctggga	ttacaaggcg	tgagccactg	32940
cgcccggcag	cagttttctca	gtttttaattt	ggagttttgc	atctgtgttc	atgagtgage	33000
ctgaaatttt	cactttttcca	tatcttattt	ctctgggttc	ctagaatgag	ctagagagtg	33060
ttcctccttt	ctgttctctg	gaagagtttg	tgtgagatta	gaatgagtg	gtctgataat	33120
ttagtgtcat	tcatttataa	aattcctagg	cctagagttt	tttttctggg	aaaagtttac	33180
attttgactc	attttttttag	tagtttttagg	actgttttagg	ttctctattt	cttgattgag	33240
ccagttttga	taagttaatc	tttctaattt	gtagatattt	tctctaagtt	tgcaaagtga	33300
atacataaaa	ctttcttgte	atttctcacc	atatctgtag	ttctatcttt	ttattgctaa	33360
tattactaat	ttgtactttg	actatttgta	tttgttacct	gttgccgagt	aacaatatta	33420
gtacaaacct	agtggcttag	aacaacacac	attgattact	tcaccgtttc	tgtgtgtcag	33480
aagtccaggc	gcggcctcgc	aggctcgtct	ctgcctcagg	gtctctccgg	gcttcagtca	33540
gggtgttagc	caggaccggg	gtctcgcctg	agcttccagt	gaggaaggat	ctgcctctga	33600
gcacacaggg	tcctcggcac	gatcccattc	ctcagctgga	agctgccgac	tgcctgtctg	33660
tgcggggcct	ctctagatgg	catcttcaca	aaagcgagaa	gggagagttg	gtagagggag	33720
tctgctagca	ccatgggagt	cgcggtcaca	cagacctcgg	tcccaggacc	cgcacccatc	33780
aaccctgccc	tgatctgctg	gttaaagaca	agtcaccagt	cccacagggt	gacactggag	33840
tagacacttc	gctctggcct	tttcagagaa	ctggttattt	tttgaaata	tcagttagat	33900
gtaggatggg	tcttgtcttc	taaatctatt	gttttctctc	taattgattt	tttctgtttt	33960
ttatttagtt	cactttgttg	ggttttgtca	agcctgggtc	actggatctc	agggatgctg	34020
ctcctgtttg	cagctgtgtc	tgcaggggct	tcccaaggcc	ttgctttccc	ctcacgtccc	34080
tttctcagac	tctgccaatc	cgcttcccgc	tctggtgtcc	tgtggttgct	tctttttaaa	34140
accctcatcg	gtctgtgtaa	actgtttatt	tttatgtggt	ttttaaggga	gaccattctc	34200
attcttttga	gaccctggaa	aggatggaat	tgggataggt	aaactgctgt	tttaccagaa	34260
tgttcactgg	accaatctcg	tgttccaggg	agacctcac	gcagggctta	gagttctgtc	34320
ggcggcagca	gagggccgat	ggctcctggg	aagggtgagt	gagcctccac	tcgtgagtgc	34380
agagatgcat	gggatccaga	ggtttctgct	ctcacacact	gcgttcataa	atgttggctt	34440
gtatgttgtt	gtacaccag	aagtttctgg	aagtgagctg	ccagcccgtg	acttctgggt	34500
gacctcgttc	ctttgtggca	tgcgtggcct	ttgccccggt	ggaaattgct	cagtacgttg	34560
ctgggcgag	ccgggctgct	gggagcgcgc	tgtagcctga	gcgtggctat	tccctccacc	34620
ctttctgctt	gctcttaggg	tccagcagac	agagctgctg	tcttccacgg	ccttaatgcc	34680
tgaggcactg	gagttggtgg	gctggctggg	gcacgtgtga	ttgttgagca	atgcgtgttg	34740
tttcacacac	cggctgtgaa	caggggtggaa	gggctgaggc	tctccctgtt	tccctccagc	34800
tcctggggag	tttgcttcac	ctacggcacc	tggtttgccc	tggaggcctt	cgctgtatg	34860
gggcagacct	accgagatgg	gtgagttagt	gcctgtcctc	tgggtgggtg	gggttctcaa	34920
cccaatgctc	tgatcatgag	gttttttgct	ttgacatttg	gttttaggg	ttgtttgttt	34980
gtttgtttgt	ttttgagacg	gagtctcgct	ctgtcaaccg	ggctgacatg	cagtggcatg	35040
atcctagctc	actgcagtct	caaactcgtg	ggctcaagcg	atcctcccga	gtagctggga	35100
tcacaggtgc	acgccaccac	cccgggctaa	tcttttaaaa	cttttatgta	gagatggagt	35160
cttgctgtgt	tgctcacact	ggtttgggct	caagcagtct	tcctacctcg	gccttccaaa	35220
gtgctgggg	tacaggcatg	agccaatgtg	cctggcctgt	ttttaatatt	tttaaacagt	35280
gagataagat	ccccggttga	aatgaagatg	tttccctggg	cccacagctc	tctggagctt	35340
cctgacatgt	atgctggagg	gacgcttctg	gtctccggcc	cctccaggca	tacagatgcc	35400
tcccaacct	gagtaggaag	attagggtcc	acggcctcgc	tggagcgggt	tagaaggcag	35460
gagatctccg	gtcccagccg	tgtctccagc	cgccggactc	tctcccagcc	ctgtctccag	35520
ctgccccact	gtctcccaga	gtctgccgtg	tggatgttta	gaggtgggga	gcaccgtgct	35580
tggctgagtg	cagcttgtga	gacgtgtctc	ccaagcactg	cagacctcac	tcagcctgac	35640
gcgtccgtga	ggccatcctc	ggtactcgca	tgtccctttg	tcttcccagc	gactctggga	35700
ggcaggagta	tctgttccca	gttcacatct	gcaaaagtca	agctcgggtt	tcagtagtgg	35760
cccatggccc	ttaggtaggg	tggccccatc	gtgcaggctc	ctccccgtac	cccaaggcag	35820
cctgctgggg	tgagaagcca	ggggtctggg	accttccctg	gtgtgatggg	gtctcctgtc	35880
tctgggtctt	gcaggactgc	ctgtgcagag	gtctcccggg	cctgtgactt	cctgctgtcc	35940
cggcagatgg	cagacggagg	ctggggggag	gactttgagt	cctgcgagga	gcggcggtat	36000

ttgcagagtg	cccagtccca	gatccataac	acatgctggg	ccatgatggg	gctgatggcc	36060
gttcgggtggg	gacgacggga	ccgtccctga	gccttgggtt	tgggtagagg	agggacactc	36120
agctgtgagc	cggtggcctg	ggctgagtga	atgtagagag	gaggggaggc	ctgtggggcca	36180
ggtcagctgc	cactctggga	acagacacct	acaagagcca	catgcctggt	tcctggggcca	36240
agaacgtggg	ctgctctgac	caagtggggc	cctgcagaga	ggctcgcctc	ttagaagtga	36300
accacccacc	attagccatg	tcagtgggaag	agcaagcaca	tcagggaccc	atggaaacag	36360
cgaggtgggc	tgcgatgagg	atgctgcttc	ctggtgtggt	agtgatgacg	gtcacagcag	36420
ctgctctctg	tggccctact	gtgttcacag	ctggtgctga	gccacatatg	tgccaggtgc	36480
acacacacgc	agacgcatgc	aggcaggcat	cagtgtacac	actgatgtgc	acacacagat	36540
gtacatggag	acagatgcac	acacaggcct	atgcacacac	gtacgcatgc	ccacacaggc	36600
acctgtgtcc	acacacatac	agatgcaccc	acagcatccc	atctgtgcca	cacactgaca	36660
taggtacatg	gagacagatg	cacacacagg	tctgtgcaca	cacgtatgca	tgcacaggca	36720
cctgtgtaca	cacacgtaca	gatgcaccca	caggatccca	tctgtgccac	acacagacgt	36780
aggtacatgg	agacagatgc	acacacagg	ctgtgcacac	acatacatac	gcatgcacag	36840
gcacctgtgt	acacacatgc	agatacaccc	acagcatccc	atctgtgcca	cacacagaca	36900
taggtacatg	gagacagatg	cacacacagg	tctatgcaca	cacatacgca	tgcacaggca	36960
cctgtgtaca	cacacgtaca	gatgcaccca	caggatccca	tctgtgccac	acacagacgt	37020
aggtacatgg	agacagatgc	acacacagg	ctgtgcacac	acatacatac	gcatgcacag	37080
gcacctgtgt	acacacacgc	agatacaccc	acagcatacc	atctgtgaca	cacacagacg	37140
taggtacatg	gagacagatg	cacacacatg	tctgtgcaca	cacatacata	cgcatgcaca	37200
ggcacgtgtg	tacacacatg	cagatacacc	cacagcatgc	catctgtgac	acacacagac	37260
gtaggtacat	ggagacacat	gcacacacag	gtctgtgcac	acacatacgc	atgcacaggc	37320
acctatgtac	acacatgcag	atacacccac	agcatcccat	ctgtgccaca	cacagacata	37380
ggtacatgaa	gacagatgca	cacacaggtc	tatgcacaca	cgtatgcatg	cacaggcacc	37440
tgtgtacaca	catgcagatg	caccacacag	atcccatctg	tgccacacac	agacatacgt	37500
acatggagac	agatgcacat	acaggctctat	gcacacatgt	acacatgcac	aggcacctgt	37560
gtacacacat	gcagatgcac	ccgcagtatc	ccatctgtgc	catacacaga	catacgtaca	37620
tggagacaga	tgcacataca	ggtctatgca	cacatgtaca	catgcacagg	cacctgtgca	37680
cacatatgca	gatgcacccg	cagtatccca	tctgtgccac	acacagacat	acgtacatgg	37740
agacagatgt	acacacaggt	ctatgcacac	atgtacacat	gcacaggcac	ctgtgtacac	37800
acatgcagat	gcacccgcag	tatcccatct	gtgccacaca	cagacatacg	tacatggaga	37860
cagatgcaca	cacaggctca	tgcacacatg	tacacatgca	caggcacctg	tgcacacata	37920
tgcagatgca	ccgcagtat	cgcatctgtg	ccacacagac	atacgtacat	ggagacagat	37980
gtacatacag	gtctatgcac	acatgtacac	atgcacaggc	acctgtgcac	acatacatac	38040
agatgcaccc	gcaacatccc	gtctgtgctg	ccctattagg	tttgtggcca	tttggggaat	38100
cttcctaaaa	ccctaaaagc	tagggcagg	ctgcttgagc	aggagcagca	gggtctgggg	38160
gacccctgag	ggcaggacag	tcagggaccc	acagttgagc	tggggccgct	gagccctgga	38220
tccttcttgg	tgtcttatcc	tggccagcaa	gcaagtgtga	gctcctgtgg	gtctccagag	38280
gcccatgagg	accagtgggc	cagttgggaa	caaggcttgg	cgtcctcttc	aggggggaac	38340
accagggcag	gcctgaggag	gcctgtgtcc	ccagcctgtc	attgctgtgg	ctccgcttct	38400
cagggagcct	aggaagaagg	tgtggcaaga	gcccagggcg	ctggctgcac	ctggcggggc	38460
ctgtgggcgt	cagtttagac	ccatccattc	tactgcagc	attccagggt	ttgcccttat	38520
gctcggctgt	gtgaggggtga	ggatgatgct	gtgggggcat	gcatgctggg	tgtgtttcag	38580
ccttctcttc	caccaggcat	cctgacatcg	aggcccagga	gagaggagtc	cggtgtctac	38640
ttgagaaaca	gctccccaat	ggcgactggc	cgcaggatat	ccgccaggga	cctgagcgca	38700
caaggcccag	cactgacctc	cagcgtgcat	ggctgtttcc	acgtccccct	gctctgtgtc	38760
ctttttgggg	tactttggac	acttgggagg	cgtcacctct	gccagtgaat	gccacagttg	38820
gtggcaggtc	tgtggcagg	ggtcgggtcc	taaagtccag	atcttgctgt	tgtttcaagt	38880
gatgctctgg	gtgggggagg	agctggatgg	gagaagccag	tgggcgggaa	gcctttttgc	38940
tgcaggacag	accctcccac	tccagatgac	ctagtggccc	ctcactgagc	cagaagtccc	39000
tgtggtgtgg	gtgtcatgag	gtcatgtgag	gccaaccgcc	ctcccctggg	atgaggctga	39060
gttggtggaa	gctgatgtgg	ttgtgagggg	ctggtgaccc	tggcttaggg	tttgcctgag	39120
ggcggggagt	ctgagctggg	ctgatgggtgc	catgactgat	gcgggatgga	ctacttgctt	39180
tcctatgctc	ttgcttaatt	agccctttcc	aggctgactc	acccacaagc	cagccaagcc	39240
aacagccagg	gctccagttc	agggactagc	cctcagctga	ctggtgaagc	ctttgtgttt	39300
atctctctgt	gttcttttag	gaaaacattg	ctgggggtctt	caacaagtcc	tgtgccatct	39360
cctacacgag	ctacagggaac	atcttcccca	tctgggcccct	cggccgcttc	tcccagctgt	39420



accctgagag	agcccttgct	ggccaccct	gagaacatgc	ctacctgctg	ggtgccgtct	39480
gtgcgttcca	gtgaggccaa	ggggtcctgg	ccgggttggg	gagccctccc	ataaccctgt	39540
cttgggctcc	aaccctcaaa	cctctatctc	atagatgtga	atctgggggc	caggctggag	39600
gcagggatgg	ggacaggggtg	ggtggcttag	actcttgatt	tttactgtag	gttcatttct	39660
gaaagtagct	tgtcgggctt	gggtgaggaa	gggggcacag	gagccgtgac	ccctgaggag	39720
gcacagcgcc	ttctgccacc	tctgggcacg	gcctcaaggt	agtgaggcta	ggagggtttt	39780
tctgaccaat	agctgagttc	ttgggagagg	agcagctgtg	cctgtgtgat	tccttagtgt	39840
cgagtgggct	ctgggctggg	gtcggccctg	ggcaggcttc	tcctgcacct	tttgtctgct	39900
gggctgaggg	acacgagggc	aaccctgtga	caatggcagg	tagtgtgcat	ccgtgaatag	39960
cccagtgcgg	gggttgctca	tggagcatcc	tgaggccgtg	cagcagggag	ccccatgccc	40020
ctgggtcgtg	agcttgccctg	cgtatgggg	ggtgtcatgg	agcctcatgc	ccctgggtcg	40080
tgagctcgcc	tgagtatggg	gtggtgtcat	ggagccgcac	acccctgggt	tgtgagctcg	40140
cctgcatatg	cagggctctgt	catggaacat	cccaagtctg	tgcagcaggg	gagcccatg	40200
cccctgggac	atgaaccac	ctgcgtggaa	tgctgtttgt	gaggtgtcta	caggggttat	40260
agtagtcttg	tggacacaga	aatgcacagg	ggacacttac	ggacacagaa	atgcacaggg	40320
gaggccgagc	ataaccaggg	gtgaggggca	ggcagcagtt	gtagttactg	ccgcggggca	40380
ctgctatgtg	cagggacagc	cagcgcccag	cccataccca	ctccctgggc	tggctggcag	40440
gtatggcacc	ctgggagccc	ggcatatacc	cagggcaccc	ctacggctgc	cgccagtctc	40500
atgccaggt	gggtgctctg	ggctggagcg	agggccaggt	tttggggcga	ggcttcccc	40560
ggcaatcctg	tgagctccct	tctagcctct	gacccagtct	ggtctggctt	gcatggatgt	40620
agggcttggg	gtgggaagtt	caggtcctgg	ctttgccttt	gcctgatgtg	gatgagcagc	40680
tcacatgctc	agggccacct	gagactgtca	ctgctctccc	ctggctactg	ggaggagtca	40740
ctgagagctt	cgttaccctt	gctgccttgc	ccagggcaca	ccctatacct	cctcatctgc	40800
tcttcccttc	cctgcgcctt	tctgggcagg	tagcagtcct	tggcctctcc	ccctggctga	40860
tcactctccc	tcaggcagtg	gagatctgcg	tctggacacc	ctcagatcct	gtcattgcct	40920
gcccagagtc	cttcaggggc	acccctctgc	cttgggtgtg	ggtccagggc	tctcaccag	40980
gtgccgcacc	ctctgggggtc	ttctgtccag	ctcccttgcc	ccatgtgctg	tcactgactc	41040
tccttgggac	tcgcctgcct	gctcagagcc	ctgcagggct	tggtcagctg	cctgttcagt	41100
gtcaacactt	ccctgcacat	cttaaaactg	ggctttatatt	tcgctgaagg	aactgtgttg	41160
ggacccttga	catctgtcag	gtttgcacat	gctgtttttt	tttctcagcc	cacgtgttct	41220
ccccacgtg	gggtagcagc	aggacagaca	gtgaatcaca	gagtctgccc	tgagcagagg	41280
ctgctgtccc	tgggactcct	agccatggtc	agactgtaca	aaacggtttt	ccagaaatga	41340
aatgtaaatc	cattttttata	ctgaaaatgt	tactgaaagt	cacttttatg	agcatctgcc	41400
ttaataaaca	gacattgatt	cccttatcag	aagcctgtca	cactgtgttt	cgtttcatcc	41460
tggggagaac	tgcagatttg	gggtttcttg	ctgtcatacg	tcacctgcct	gtggggcgag	41520
tgggaggccc	agcctgggtt	agggaaacaag	agtgcagtg	ggagtagcag	ggtgcgtctc	41580
cagttacctg	agggaaaaca	gatattttta	gagataatag	catagcctat	tttaatatgt	41640
tttaaggcc	ataagcatat	ccaggaagat	aaataaacgt	gatacaatgt	ccacatagga	41700
ggaactttct	ttcactgcat	tgttttccct	cacagtggcc	ttcaagtcac	aggacgcagc	41760
gattccctgc	cctcttcggt	gttattacac	aggcaggact	tcagtgtcag	tatccctgcc	41820
ttcagtcttc	tttagaaatc	acatctgtgt	tcaatccatt	gtttagaggg	agtgtatttt	41880
tcctgttcca	cgaagaggac	tttttgttca	caattggatc	acaatgcaga	ggagtctgtt	41940
cctccccctg	cggcttctcg	gtgctgggag	ggtgacctgt	cccagatgac	tcataccctt	42000
gacatgctct	tgacaaagga	caccaccaag	aggagatggc	agctgtaccg	gtgcagcctc	42060
tgtctgaggg	ggatatttgc	ctcagtgtga	ttaaaaatca	gtcatgaaag	atttttgaat	42120
tcagattatt	tttatcagga	acagattttg	aacatcctga	aatcttttcc	ctggcatcat	42180
attaggtttt	ctttgttcac	tatgatgtaa	agtttcagac	tcttgatatt	tttaatatca	42240
acatagacgg	taggacaagg	aacggtagca	gaaatgagta	aagagacaat	aatgataaga	42300
tcgattttatc	aagacataac	aaccccaaat	gtatatgcac	taaataacag	cttcaaaata	42360
catgaagcaa	aatggcagaa	ttgaagagaa	tgagataaaa	acagaatttt	aacgggtgct	42420
ttccgtactt	tgtaactgac	agacatgaga				42450

<210> 4  
 <211> 732  
 <212> PRT



<213> Homo sapiens

<400> 4

Met	Thr	Glu	Gly	Thr	Cys	Leu	Arg	Arg	Arg	Gly	Gly	Pro	Tyr	Lys	Thr
1				5				10					15		
Glu	Pro	Ala	Thr	Asp	Leu	Gly	Arg	Trp	Arg	Leu	Asn	Cys	Glu	Arg	Gly
		20					25				30				
Arg	Gln	Thr	Trp	Thr	Tyr	Leu	Gln	Asp	Glu	Arg	Ala	Gly	Arg	Glu	Gln
	35					40				45					
Thr	Gly	Leu	Glu	Ala	Tyr	Ala	Leu	Gly	Leu	Asp	Thr	Lys	Asn	Tyr	Phe
50					55				60						
Lys	Asp	Leu	Pro	Lys	Ala	His	Thr	Ala	Phe	Glu	Gly	Ala	Leu	Asn	Gly
65				70					75					80	
Met	Thr	Phe	Tyr	Val	Gly	Leu	Gln	Ala	Glu	Asp	Gly	His	Trp	Thr	Gly
			85					90					95		
Asp	Tyr	Gly	Gly	Pro	Leu	Phe	Leu	Leu	Pro	Gly	Leu	Leu	Ile	Thr	Cys
		100					105					110			
His	Val	Ala	Arg	Ile	Pro	Leu	Pro	Ala	Gly	Tyr	Arg	Glu	Glu	Ile	Val
	115					120						125			
Arg	Tyr	Leu	Arg	Ser	Val	Gln	Leu	Pro	Asp	Gly	Gly	Trp	Gly	Leu	His
130					135						140				
Ile	Glu	Asp	Lys	Ser	Thr	Val	Phe	Gly	Thr	Ala	Leu	Asn	Tyr	Val	Ser
145				150					155					160	
Leu	Arg	Ile	Leu	Gly	Val	Gly	Pro	Asp	Asp	Pro	Asp	Leu	Val	Arg	Ala
			165				170						175		
Arg	Asn	Ile	Leu	His	Lys	Lys	Gly	Gly	Ala	Val	Ala	Ile	Pro	Ser	Trp
	180						185					190			
Gly	Lys	Phe	Trp	Leu	Ala	Val	Leu	Asn	Val	Tyr	Ser	Trp	Glu	Gly	Leu
	195			200							205				
Asn	Thr	Leu	Phe	Pro	Glu	Met	Trp	Leu	Phe	Pro	Asp	Trp	Ala	Pro	Ala
210					215				220						
His	Pro	Ser	Thr	Leu	Trp	Cys	His	Cys	Arg	Gln	Val	Tyr	Leu	Pro	Met
225				230					235					240	
Ser	Tyr	Cys	Tyr	Ala	Val	Arg	Leu	Ser	Ala	Ala	Glu	Asp	Pro	Leu	Val
			245					250					255		
Gln	Ser	Leu	Arg	Gln	Glu	Leu	Tyr	Val	Glu	Asp	Phe	Ala	Ser	Ile	Asp
		260				265						270			
Trp	Leu	Ala	Gln	Arg	Asn	Asn	Val	Ala	Pro	Asp	Glu	Leu	Tyr	Thr	Pro
	275				280							285			
His	Ser	Trp	Leu	Leu	Arg	Val	Val	Tyr	Ala	Leu	Leu	Asn	Leu	Tyr	Glu
290					295				300						
His	His	His	Ser	Ala	His	Leu	Arg	Gln	Arg	Ala	Val	Gln	Lys	Leu	Tyr
305				310					315					320	
Glu	His	Ile	Val	Ala	Asp	Asp	Arg	Phe	Thr	Lys	Ser	Ile	Ser	Ile	Gly
			325					330					335		
Pro	Ile	Ser	Lys	Thr	Ile	Asn	Met	Leu	Val	Arg	Trp	Tyr	Val	Asp	Gly
		340				345						350			
Pro	Ala	Ser	Thr	Ala	Phe	Gln	Glu	His	Val	Ser	Arg	Ile	Pro	Asp	Tyr
	355					360					365				
Leu	Trp	Met	Gly	Leu	Asp	Gly	Met	Lys	Met	Gln	Gly	Thr	Asn	Gly	Ser
370					375					380					
Gln	Ile	Trp	Asp	Thr	Ala	Phe	Ala	Ile	Gln	Ala	Leu	Leu	Glu	Ala	Gly
385				390					395					400	
Gly	His	His	Arg	Pro	Glu	Phe	Ser	Ser	Cys	Leu	Gln	Lys	Ala	His	Glu
			405					410					415		
Phe	Leu	Arg	Leu	Ser	Gln	Val	Pro	Asp	Asn	Pro	Pro	Asp	Tyr	Gln	Lys
		420					425					430			

Tyr	Tyr	Arg	Gln	Met	Arg	Lys	Gly	Gly	Phe	Ser	Phe	Ser	Thr	Leu	Asp	
		435					440					445				
Cys	Gly	Trp	Ile	Val	Ser	Asp	Cys	Thr	Ala	Glu	Ala	Leu	Lys	Ala	Val	
		450				455					460					
Leu	Leu	Leu	Gln	Glu	Lys	Cys	Pro	His	Val	Thr	Glu	His	Ile	Pro	Arg	
					470					475					480	
Glu	Arg	Leu	Cys	Asp	Ala	Val	Ala	Val	Leu	Leu	Asn	Met	Arg	Asn	Pro	
				485					490						495	
Asp	Gly	Gly	Phe	Ala	Thr	Tyr	Glu	Thr	Lys	Arg	Gly	Gly	His	Leu	Leu	
			500					505					510			
Glu	Leu	Leu	Asn	Pro	Ser	Glu	Val	Phe	Gly	Asp	Ile	Met	Ile	Asp	Tyr	
		515					520					525				
Thr	Tyr	Val	Glu	Cys	Thr	Ser	Ala	Val	Met	Gln	Ala	Leu	Lys	Tyr	Phe	
		530				535					540					
His	Lys	Arg	Phe	Pro	Glu	His	Arg	Ala	Ala	Glu	Ile	Arg	Glu	Thr	Leu	
					550					555					560	
Thr	Gln	Gly	Leu	Glu	Phe	Cys	Arg	Arg	Gln	Gln	Arg	Ala	Asp	Gly	Ser	
				565					570						575	
Trp	Glu	Gly	Ser	Trp	Gly	Val	Cys	Phe	Thr	Tyr	Gly	Thr	Trp	Phe	Gly	
			580					585					590			
Leu	Glu	Ala	Phe	Ala	Cys	Met	Gly	Gln	Thr	Tyr	Arg	Asp	Gly	Thr	Ala	
		595					600					605				
Cys	Ala	Glu	Val	Ser	Arg	Ala	Cys	Asp	Phe	Leu	Leu	Ser	Arg	Gln	Met	
		610				615					620					
Ala	Asp	Gly	Gly	Trp	Gly	Glu	Asp	Phe	Glu	Ser	Cys	Glu	Glu	Arg	Arg	
					630					635					640	
Tyr	Leu	Gln	Ser	Ala	Gln	Ser	Gln	Ile	His	Asn	Thr	Cys	Trp	Ala	Met	
				645					650						655	
Met	Gly	Leu	Met	Ala	Val	Arg	His	Pro	Asp	Ile	Glu	Ala	Gln	Glu	Arg	
			660					665							670	
Gly	Val	Arg	Cys	Leu	Leu	Glu	Lys	Gln	Leu	Pro	Asn	Gly	Asp	Trp	Pro	
		675					680					685				
Gln	Glu	Asn	Ile	Ala	Gly	Val	Phe	Asn	Lys	Ser	Cys	Ala	Ile	Ser	Tyr	
		690				695					700					
Thr	Ser	Tyr	Arg	Asn	Ile	Phe	Pro	Ile	Trp	Ala	Leu	Gly	Arg	Phe	Ser	
				710						715					720	
Gln	Leu	Tyr	Pro	Glu	Arg	Ala	Leu	Ala	Gly	His	Pro					
				725					730							